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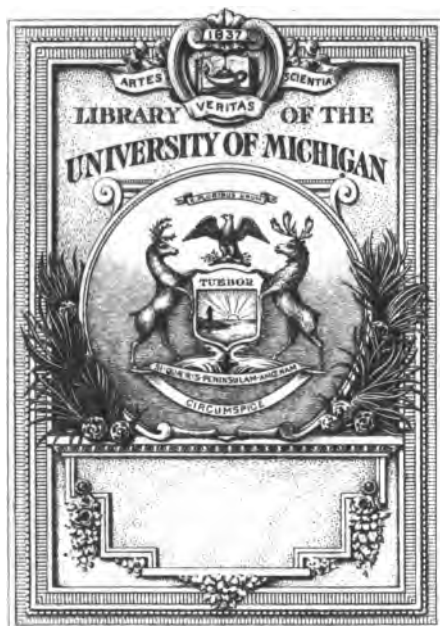
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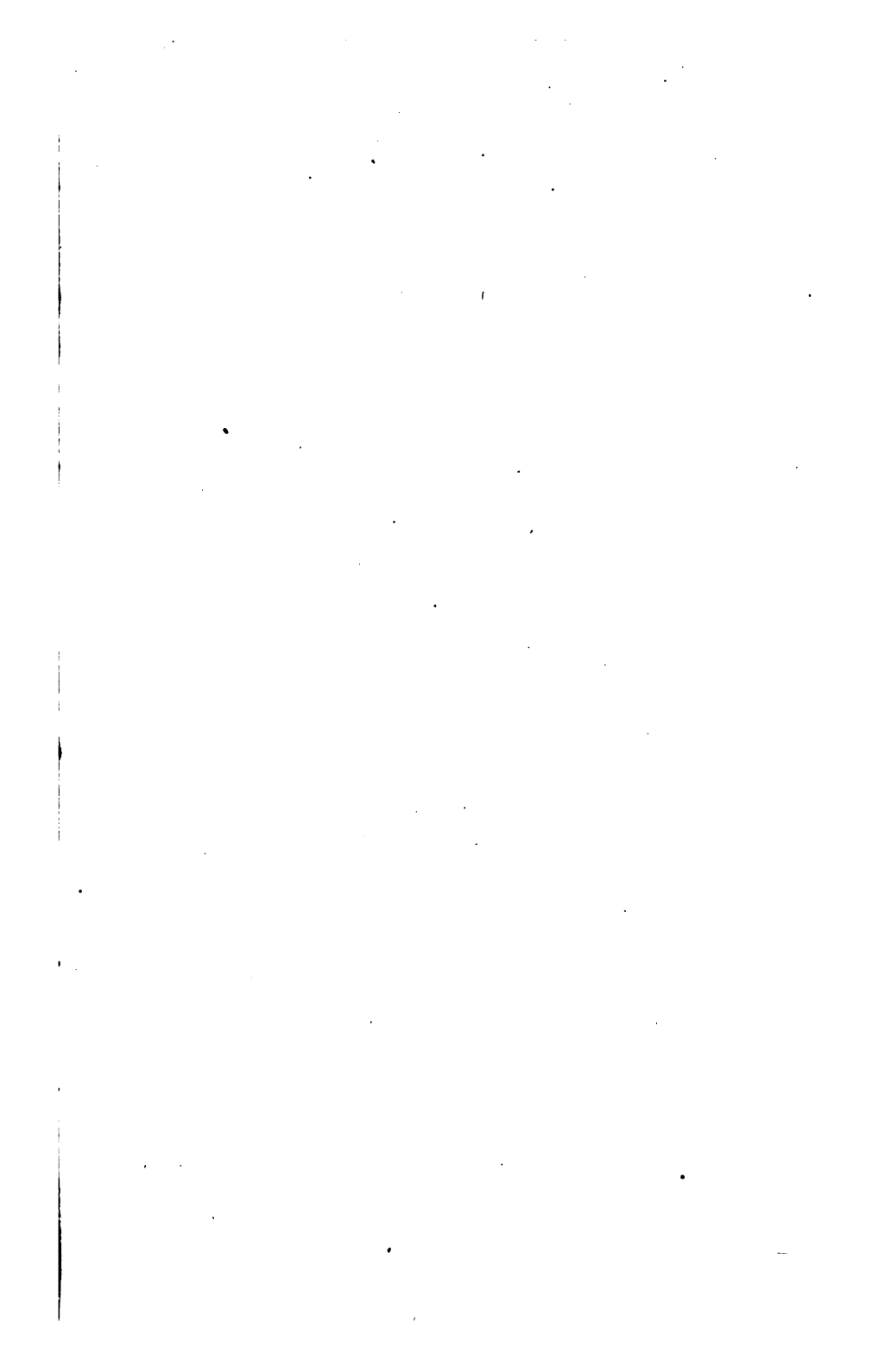
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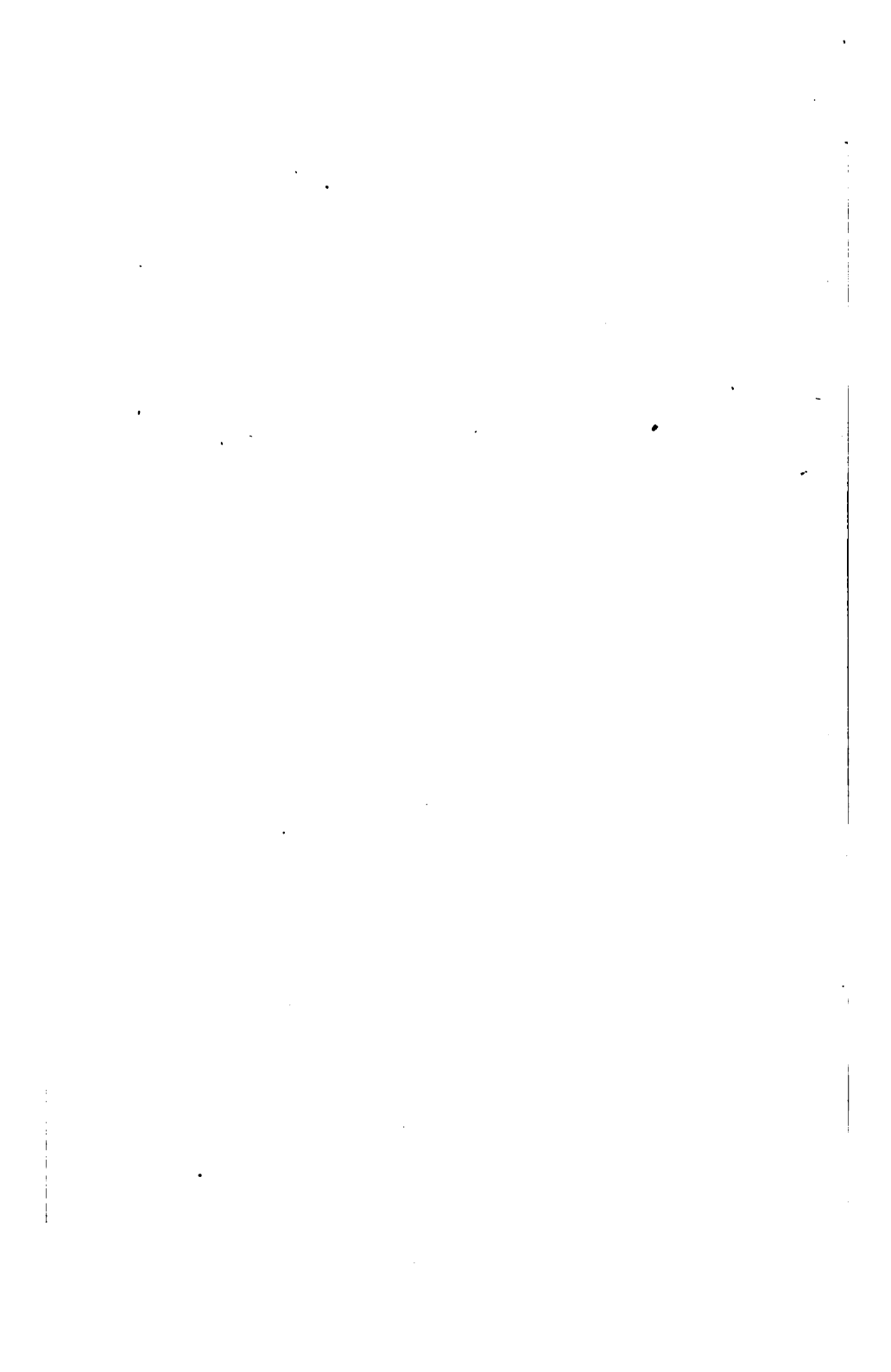
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CAREERS FOR THE COMING MEN.

**PRACTICAL AND AUTHORITATIVE DISCUSSIONS
OF THE PROFESSIONS AND CALLINGS
OPEN TO YOUNG AMERICANS.**

BY

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CONTENTS

	PAGE
INTRODUCTION.	7
THE ARMY	11
COLONEL ALBERT L. MILLS, U. S. A., Superintendent of United States Military Academy, West Point.	
TEACHING	21
RUSH RHEES, LL. D., President of the University of Rochester.	
THE NAVY	33
REAR-ADMIRAL GEORGE WALLACE MELVILLE, Engineer-in-Chief, United States Navy.	
COMMERCIAL LIFE	45
CHARLES STEWART SMITH, Ex-President of the New York Chamber of Commerce.	
THE CHURCH	53
GEORGE B. STEWART, D. D.	
MEDICINE	61
D. B. ST. JOHN ROOSA, M. D., LL. D. President of the New York Post-Graduate Medical School.	
RAILROADING	73
GEORGE H. DANIELS, General Passenger Agent, New York Central Railroad.	

ARCHITECTURE	PAGE 83
THOMAS HASTINGS.	
ELECTRICITY	89
THOMAS COMMERFORD MARTIN, Past President of the American Institute of Elec- trical Engineers, and Editor of "The Elec- trical World and Engineer."	
LAW	99
JOHN DE WITT WARNER.	
MECHANICAL ENGINEERING	107
ROBERT H. THURSTON, LL. D., DR. ENG. Director of Sibley College of Mechanical Engineer- ing, Cornell University.	
MINING ENGINEERING	119
T. A. RICKARD, Editor of "The Engineering and Mining Journal."	
CIVIL ENGINEERING.	131
GEORGE F. SWAIN, Professor of Civil Engineering in the Massachusetts Institute of Technology and Member of the Boston Transit Commission.	
REAL ESTATE	145
WILLIAM CHESEBROUGH, President of the Century Realty Company.	
LIFE INSURANCE	157
JOHN F. DRYDEN, United States Senator, President of the Prudential Insurance Company of America.	

PUBLIC SERVICE	PAGE 171
CHARLES N. FOWLER, Chairman of Committee on Banking and Currency, House of Representatives, U. S. A.	
ADVERTISING	179
M. M. GILLAM.	
FARMING	189
L. H. BAILEY, Director of the Agricultural College, Cornell University, Editor of "Country Life in America."	
JOURNALISM	201
WHITELAW REID, Editor of "The New York Tribune."	
THE STAGE	213
JAMES K. HACKETT.	
PUBLISHING	219
• F. N. DOUBLEDAY.	
BANKING	227
BRADFORD RHODES, President of the Thirty-Fourth Street National Bank of New York.	
AUTHORSHIP	237
CYRUS TOWNSEND BRADY, Author of "The Southerners," "A Doctor of Philosophy," "Sir Henry Morgan—Buccaneer," "American, Colonial and Border Fights and Fighters," etc., etc.	

INTRODUCTION.

One of the heaviest responsibilities that parentage entails lies in advising the son, the coming man of America, in regard to the vocation which he shall follow in after years. He is a wise parent who will acknowledge and accept this responsibility while his boy is yet of a tender age, for then it is that latent predilections frequently manifest themselves, predilections that may by careful guidance be converted into an aptitude, and from an aptitude into that positive form of enthusiasm which goes so far to ensure success. Too often, however, it is the case that the predilections of immaturity are inimical to the best interests of the individual, who may elect to adopt a career for which he is naturally unfitted, and in which, if he escape failure, he can never hope to achieve any great degree of success. Not to every parent, though, is given the clarity of vision which will enable him to perceive the unwisdom of his boy's choice, or, if perceiving it, the ability to lead him gently to the path which it were best he should take. For want of just such penetration the ocean of life is full of many human wrecks, hulks battered on the rocks of misguided effort. And it might easily have been that a few words, spoken in the right way and at the proper moment, would have directed the buoyant bark of youth into the smooth waters of progress and achievement.

Obviously, the men best equipped to give such advice

are those who have gained the highest success themselves. But how few can hope to obtain the ear of our captains of industry, our leaders of science, our premiers in every calling and profession. These, the busiest men of a busy country, cannot be expected to grant interviews, to write letters of counsel, to reply personally, or even indirectly, to appeals for advice. What they may do, however, and what the following pages will show that many of them have done, is to write what may be termed "open letters," in which they take the reader into their confidence, and, writing from the experience of many years, detail the prerequisites of success.

It was in the belief that such "open letters" would prove of widespread and lasting benefit, that the New York Tribune undertook to secure the articles comprised in this volume. Not only was care exercised to cover such a wide range of subjects that all young Americans might be reached, but the writers chosen were men whose right to speak with authority would be unquestioned, men who had attained signal pre-eminence in their several spheres of activity. The result was a symposium of what may actually be regarded as the equivalent of personal interviews, wherein the anxious father or the eager son will receive at first hand the information of which he is in quest. Not only this, but the lad who has no decided taste for any one calling may be enabled, by thus being provided with a manual to the whole field of endeavor, to determine what it were wisest and best for him to undertake.

It will be found that while sympathy is the prevailing note of every article, the writers, men of affairs, go straight to the point, state what a young man must be and must do before he may hope to attain even a moderate

degree of success in his chosen calling, what that calling has to offer him in the way of reward, financial or otherwise, and what that calling involves in the stress of our twentieth century civilization. Simplicity and directness of statement mark these talks, which are free on the one hand from an undue optimism; on the other hand from that form of pessimism which takes delight in chilling the ardor of enthusiasts, eager to leap into the arena and "earn their own living."

The world is always in need of young men of ability, endeavor and energy, above all of pluck; young men who will fight to the last gasp, snatching victory out of the very jaws of defeat. But, as has been said, these attributes are of no avail if they be misdirected, and too often misdirection it is that is the primal cause of that condition of affairs so comprehensively described as the "overcrowding of the professions." Many a young man is starving as a lawyer, physician, or journalist, who might be earning a handsome competence as an engineer, electrician, perchance as a farmer. Or, if he has embraced the calling for which he is by nature best fitted, it may be that he has, through ignorance, neglected the rudiments that spell success. These rudiments, of course, cannot be learned as can reading, writing, or arithmetic, but once grasped and carefully tended they will force a man onward and upward year by year, so long as he is true to his calling and true to himself.

These are some of the lessons to be gleaned from this volume. Above and beyond them is to be seen a higher preachment, running through the symposium, a preachment alike for those about to embark on the sea of life and those whose ships are already battling the waves—the inculcation of the value, nay, the necessity of char-

acter, the cleaving through thick and through thin to honor and sobriety, the cultivation of earnestness and self-reliance, the molding of a perfect manhood.



COLONEL ALBERT L. MILLS, U. S. A.,
SUPERINTENDENT OF UNITED STATES MILITARY ACADEMY,
WEST POINT.

THE ARMY.

Comparatively few of the young men of our country know much about life in our regular army, or concerning the attractions the army offers to them to take service in it as a career. That this should be so is not surprising, for until recent years the major part of the small army was stationed in remote parts of the country, or lost in our millions of people. Beyond a local knowledge of it at its stations, the country at large only saw small units of the army at occasional parades, or read of it when writers and artists, whom chance had thrown with it, devoted their talents to portraying and picturing some of its phases. In Indian campaigns and other disturbances the army's worth was often shown, but with the passing of such incidents the public attention that had been attracted quickly gave way to interests nearer at hand. Although the stirring events of the Spanish-American War and the Philippine insurrection which followed greatly

increased public interest in the army, and added to the country's knowledge of it, as well as to its affection for it, still the particulars of its service are not widely known.

First, a few words about the character of the men who make up the army's rank and file. When the regular regiments had assembled at Chickamauga Park before setting out for the Santiago campaign, a very observant and critical foreign military attaché, who was closely watching everything pertaining to the army's movements, said to me in speaking of our soldiers, "What a superb lot of men; where in the world did your army get them?" The men he saw were modest, intelligent, efficient, self-reliant, self-respecting soldiers, fine examples of physical manhood. The attaché's adjective expressed well his admiration for them, and that the judgment he passed was good was amply shown by the events which shortly followed.

Those soldiers were the combined product of the considerate and wise discipline that had prevailed in our army; of the superior physical and professional training it gave its soldiers; and its careful recruiting methods, under which the antecedents of every man enlisted had to be known, while only a small percentage of those who applied for service were received. With our increased army of today of nearly sixty thousand men and 3,400 officers, the same methods of recruiting obtain, the same training is given, and the same wise discipline is enforced. Any man taking service in the army, therefore, can rely upon finding in its ranks self-respecting comrades whom he will be glad to know, and with whom he will find it a pleasure to serve.

The army is composed principally of infantry, cavalry, light artillery, coast artillery, and engineer soldiers. Each

of these branches or arms of the service has its grades, from that of private soldier through non-commissioned officer and commissioned officer to that of colonel. Of all the arms the three first mentioned offer probably to the young soldier most in the way of active and varied service. The cavalymen and the light artillerymen ride, so these arms are best for men who have a fondness for and knowledge of horses.

To enlist in the army, a man must be between the ages of twenty-one and thirty-five years. He must be unmarried, of good character and habits, able bodied and free from disease. He must also be a citizen of the United States, or have made legal declaration of his intention to become a citizen, and must be able to speak, read and write the English language. The term of service is three years. At its expiration the soldier who has served faithfully is honorably discharged, and receives travel pay ample to carry him to the place where he enlisted.

For the private soldier the army offers steady and continuous employment at good wages, when these, with his other allowances, are compared with what is received by men in many walks of civil life. The soldier is paid \$13 a month for the first two years, \$14 a month for the third year, \$15 a month for the fourth year, and after five years, he receives \$18 a month. Still further increases of pay are given for each five years of continuous service thereafter. In addition to this pay he receives a bountiful daily ration, an ample clothing allowance, bedding, medicines and medical attendance when sick, also fuel, lights, and other needed supplies—in fact, all the necessary living expenses of the soldier during his service are defrayed by the government. On the completion of thirty years' service all enlisted men have the

right of retirement from active service, and thereafter are paid monthly three-fourths of their pay, together with the money value of the allowances to which they were entitled at the date of retirement. The soldier is then under no further duty obligations, and is free to work or do for himself as he wishes.

Non-commissioned officers receive the same general allowances of clothing and other supplies as do privates, but greater pay, ranging from \$15 to \$40 a month in the higher grades. Good conduct, attention to duty and a soldierly bearing are certain to bring to every private soldier the regard and affection of his officers and promotion to the non-commissioned officer grade. In this grade many soldiers make the service their life profession, especially non-commissioned staff officers, who rarely leave until they have gained the right of retirement.

The government also provides other inducements which go to the soldier's comfort, entertainment, and self-improvement. Libraries are maintained at all the large posts, and also post schools, which enable any soldier so desiring to acquire, free of cost, a fair English education. To soldiers who have a knowledge of trades opportunity is often offered for adding to their savings by doing extra duty, for which they are well paid. Not the least of the advantages given the soldier is the inducement held out to him to save his money. The law gives him the right of depositing his savings with the government, and these on discharge are paid back to him with interest at the rate of 4 per cent. per annum. It not infrequently happens that soldiers after a term of service leave the army with snug sums sufficient to establish them in independent business. A soldier who really wishes to save money

can deposit with the government the greater part of his pay without at all inconveniencing himself.

To the more ambitious young man with a good education, who is desirous of serving as a commissioned officer, the career of an officer is open. Vacancies in the grade of second lieutenant in the infantry, cavalry, and artillery are filled as follows:

From graduates of the United States Military Academy, from enlisted men in the army found duly qualified, and from civil life.

Appointments under the last method are few, save in unusual times, such as the recent reorganization and increase of the army. The first two methods are the normal ways of securing commissions. A civilian to be eligible for appointment must be a citizen of the United States, unmarried, between twenty-one and twenty-seven years of age, and must be examined and approved as to habits, moral character, mental and physical ability, education, and general fitness for the service. The educational qualifications required for an appointment are those embraced in a good English education, together with a good knowledge of constitutional and international law.

Today the army has among its commissioned force many splendid officers who have secured their commissions from the ranks. Promotion is made only after careful examination, mental and physical. Enlisted applicants for commission must be unmarried and between twenty and thirty years old. All are very carefully examined by two different boards of officers at an interval of several months, with a view to testing thoroughly their fitness for the duties of an officer and of giving ample time to inquire into their moral character, before they become soldiers as well as during their service. Their ex-

amination is competitive in form, those finally coming out highest being assigned to such vacancies as may exist. The mental examination includes a good knowledge of the English language and ability to speak, read, and write it with facility and correctness; also mathematics, geography, history, constitutional and international law, as well as drill regulations and allied subjects connected with the service of the candidate.

To enter the Military Academy and be graduated from it, the necessary qualifications are a sound body and constitution, suitable preparation, good natural capacity, an aptitude for study, and industrious habits. No candidate is admitted who is under seventeen or over twenty-two years old. Each Congress district and Territory is entitled to have one cadet at the academy; each State is also entitled to have two cadets from the State at large, and forty are appointed from the United States at large.

All appointments are made by the President. The appointments from Congress districts, from Territories, and from States at large are made on the recommendation of the respective United States Representatives and Senators. The law requires that the candidate nominated must be an actual resident of the State or Territory from which the appointment is made. The appointments from the country at large are made by the President of the United States on his own selection, and are usually given to the sons of army and navy officers who, from their changing duties, acquire no permanent residence, and have in consequence no opportunity to secure appointments in the ordinary way. In recent years the President's appointments have almost all been given to the sons of officers, the majority to boys whose fathers have

been killed in battle or who have succumbed to wounds or disease in service. The appointments of Senators and Representatives are frequently given direct, and at other times to young men who are successful contestants in competitive examination. This matter is in their own hands, as no law governs it. For all appointments a second and third candidate are usually selected as alternates, in order that the existing vacancy may surely be filled.

The high school course of the country fairly represents the best mental preparation needed for entrance, and, in fact, under a regulation recently adopted graduates of public high schools may be accepted on certificate of preparedness in lieu of the usual mental examination.

While at West Point, a cadet receives \$500 a year and one ration a day, which is commuted at 30 cents. The total is an allowance of \$609.50, and within this amount he is required to live, the sum being sufficient with economy to cover the entire cost of his maintenance and provide for his equipment on graduation.

Graduated cadets are assigned as second lieutenants in the army. Those who are graduated highest are allowed to have a choice of the vacancies existing in the different arms; the next highest take the next choice, and so on. Usually those at the head of a graduating class select service in the engineers, while the others choose assignments in the artillery, cavalry, and infantry. Individual preferences for one branch of the service often influence the choice.

The pay of a second lieutenant assigned to the infantry or artillery is \$1,400 a year; \$100 more a year is given to those who go into the mounted service. The officer, however, has no allowances like the soldier, and is not

supplied with food or clothing by the government. He must purchase from his pay his uniform and other clothing; in fact, everything pertaining to his equipment. Officers of the army do not grow rich on their salary. The latter increases gradually as the officer attains higher rank and as his years of service increase. The pay of a brigadier-general is only \$5,500 a year—a small salary compared to those given in modern business life.

An officer's position, however, is secure and continuous on good behavior; and the fact that he is able at sixty-four years of age to retire on three-fourths of the pay he is then receiving, makes it easier for him to live on his salary during his active service. Under the present equitable laws a young man entering the army at from twenty-one to twenty-five years of age, if his conduct be good and he be attentive to his duty, can count on eventually attaining the rank of colonel, the pay of which grade is \$4,500 a year.

The duties of officers are exacting, and too full of responsible work to permit them adding to their pay by engaging also in other work. They must, as a rule, content themselves with the allowances they receive. The impression sometimes expressed, that the office is one of much leisure, is erroneous, and will disappear when the subject is inquired into. For the officer, as with men in every other profession, success means hard and persistent effort. In times of peace an officer can always resign, and occasionally some leave the army for more lucrative civilian positions, to fill which their training and the line of their duty give them a special aptitude. Such opportunities at times seek officers, and when embraced generally result successfully from a financial point of view.

Officers enjoy many social advantages, both in official and unofficial life. In the latter, as is rightly the case, it rests with the officer—his bearing and worth—whether the welcome usually extended to him by cultured and refined people is continued and develops into friendship. The army social life is most attractive. Every considerable station has its rounds of amusement, and nowhere else are more enduring friendships made of the kind that "share sorrows and joys alike."

Until the Spanish War, probably weightier arguments existed in favor of than against marrying. Now the question of matrimony is quite different, especially for junior officers. Nearly all officers must count on foreign service, much of which will be in parts where wives cannot be allowed to accompany their husbands and where the government cannot rightly be expected to furnish quarters suitable for families. The household must then be divided during this service. Aside from important questions bearing on the officer's efficiency that separation of this kind involves, a young officer's salary is not equal to such a demand, and this fact alone, if no outside income exists, should deter him from marrying until he can provide properly for a family.

In conclusion, the army offers an honorable career for soldiers and officers, and the provision the government makes for them is fair. At no previous time in its history has such varied and interesting service been open to its soldiers, and never before have the officers had broader fields for employment or more favorable opportunities for distinction.



RUSH RHEES, LL. D.,

PRESIDENT OF THE UNIVERSITY OF ROCHESTER.

TEACHING.

In this day of increasing regard for an estimate of success which can be expressed in money values, two professions in which the prospect of money compensation is of negative significance continue to attract able men. It has been often remarked of late that in number and quality there is a diminution in accessions to the ministry. It is probable that there is a corresponding increase in the number of young men who are looking toward teaching as their life work. Although very many positions that were formerly filled almost exclusively by men are now as generally given over to women, yet the increase in the number of our higher schools, colleges, and universities has maintained so active a demand for men that large numbers are each year attracted to the profession of teaching.

I. Three impulses operating either singly or in combination lead young men to devote themselves to this profession:

The first is the love of study for its own sake. This has been stimulated and indulged during all the time the young man has given to his education, and he finds that life work attractive which offers the opportunity to continue further the pursuit of knowledge and to follow the invitation to search for truth with other intellectual pioneers. His ideal of satisfying occupation is that of the university professor spending long hours in his library or laboratory absorbed in his passion for truth.

A second impulse is a love of influence over other lives. This is similar to that which has through many generations led men into the ministry. Not a few find their chief delight in the moulding of other minds, shaping their judgments, forming their ideas, supplying them with needed knowledge—leading them thus to the threshold of manhood prepared to do man's work and think man's thoughts worthily. The young man influenced by this idea is ambitious to follow the lead of the great teachers of whom Arnold of Rugby is the type.

The third impulse is altogether commonplace and lacks in definite quality. The young man has reached the time when he must begin to work for his support; he has no particular aptitude for any special thing, and the line of the least resistance leads him to the life of a pedagogue. Those whose choice is determined chiefly by this last indefinite consideration belong with the great multitude who, for small reason or none, choose that occupation in life which presents fewest difficulties to them at the time they must make a decision. It is not often that the prizes in any calling are won by men who enter on their work with such negative interest. Influences are constantly at work, however, to reduce the proportion of those who choose a teacher's life, because they can think of nothing

better to do. Places of any influence or adequate compensation can now be won only by men who have taken special pedagogic training in universities, colleges, or normal schools; or, lacking this, have demonstrated their fitness by successful experience as teachers in less important positions. This process of selection reduces to a minimum the attractiveness of the teacher's life for those who feel no special aptitude for it.

II. The young man who determines to be a teacher, either because of his love of study and investigation or because of his love of influence over life and the moulding of character, needs early to choose for which of the prizes of his calling he wishes to strive, that his ambition may be definite and his work wisely done. These prizes are of four sorts:

First—University Professorships.

The term university is used in its strict sense, as an institution devoted to and equipped for the investigation of new truth. The professors in a university are, first of all, specialists devoted to some line of investigation; enabled, therefore, to direct the work of other men who desire themselves to become specialists. This kind of work is done in comparatively few, although in an increasing number, of higher institutions in this country, and is found typically at the Graduate School at Johns Hopkins. In the university professor the love of study is an absorbing passion. The young men who share that passion show themselves ready to begin this work in places which offer very small money compensation, the chief attraction being the opportunity to work in library and laboratory, and to get in line for possible promotion to higher places in strict university work.

Second—College Professorships.

Although it frequently happens that men whose ambition is set upon university work seek appointment in college faculties, yet the highest success in this second class falls to a different kind of teacher than he who wins the prize in university work. The business of the college differs from that of the university in that, while the latter is devoted to the investigation of truth and the training of young men for that search, the college is for the imparting of knowledge and the training of the mind by more general studies, which give the man control over his own intellectual powers. The chief duty of college professors is teaching. The young man whose ambition looks to a place in a college faculty, like his comrade who would win a university appointment, contents himself at the outset with meagre money compensation, happy in the opportunity to demonstrate his fitness for promotion in the line which leads to the professor's chair.

Although these two prizes must be distinguished in thought, the line which separates them is often, in fact, a vanishing one. More and more it is recognized that the best university professor is that investigator who knows best how to impart his knowledge and influence to young men under his care. On the other hand, the best college teacher is he who adds to his passion for moulding young life such a love of truth for its own sake as will lead him not only to keep informed concerning the advance of knowledge, but also to follow some line of research for himself, which will keep his own mind alert and expectant. It is probable that in the future, as in the past, successful teachers will pass back and forth be-

tween the university and college. This probability will increase, however, as teachers recognize clearly the distinction between the work of the university and that for which the college exists.

Third—Principalships of High Schools or Academies.

These are the aim of the great majority of those who year by year enter the ranks of teachers from colleges and normal schools. They are worthy of high ambition. The most eminent of them offer money compensation equal to or greater than that attaching to professorships in large universities or colleges.

It is a mistake for a young man to enter the ranks of academic principals with any expectation that he is likely to be called from that work to a college or university post. A man whose ambition it is to win a place in one of the higher institutions may, indeed, begin his teaching in the high school while waiting for some vacancy in the higher institutions, yet the high school is not the natural channel for promotion to college or university. It will be misleading to refer to these last as higher institutions, if by that the impression is given that their work is more dignified or important. In importance and dignity no work can exceed that which falls to the man who shapes the policy and guides the instruction in a high school; but here more definitely than in college it is needful that the teacher have a supreme ambition to influence the lives and not simply to inform the minds of the young people with whom he has to do. With no teacher is it more imperative than with one who holds a high school position that his personal interest in the pursuit of knowledge be held subservient to his supreme duty of unfolding the lives, intellectual and moral, of his students.

Fourth—Superintendence of City Schools.

Here administrative work takes the place of direct teaching, yet the superintendent must be by training and experience a teacher in order to criticise those actively engaged in teaching in his schools, and, also, to instruct these teachers in improved methods of teaching. The superintendent as much as the principal and professor must be a man of books. The subjects of his study will be different, but no less absorbing, and the man who would win this place must be a man who couples with practical sagacity a philosophic interest in the art of teaching and a thorough knowledge of the best that is being done in the exercise of that art throughout the world.

I have made no mention of administrative places in universities and colleges, for the reason that as yet no clear definition is possible of the qualifications necessary for appointment to such places. The needs in different institutions vary greatly, and those who select their administrative officers show as yet equally varying estimates of the qualities essential to the post. It is true that these administrative officers command the highest compensations, financial and social, which are to be found in the teaching profession. Their position involves, however, the surrender of the highly cherished compensations, intellectual and personal, which constitute much of the attraction which draws men to college and university teaching. In so far as these places are to be regarded as prizes, they are as yet prizes not to be sought, but to be offered to those who in their other work exhibit qualities which fit them to meet the peculiar exigencies which attach to a given post at a given time.

Such are the prizes which men may strive for who choose teaching as a profession. The prizes fall to the

lot of the few in teaching, as in medicine, or law, or engineering, or the ministry, or business. This fact will deter no young man of ambition from entering the race as a teacher, no more than it deters the multitudes from striving for the prizes in other walks of life. It is manifest, however, that many who fail of the highest success in business, law, or medicine may win a larger money return than any except the eminent few in the ranks of teachers. As yet the compensation for the teacher who does not rise above the common level is pitifully small.

III. What then, in more detail, are the compensations which a teacher may reasonably expect?

First, financial.

There are a very few positions open to teachers which yield \$7,000 a year or more. They are naturally places of high eminence in administration or university work. The social and official obligations attaching to these positions are such as materially reduce the net value of the seemingly large salary. It is probably fair to say that in any other calling, excepting the ministry and the public service, the man who is competent to hold one of these highest educational positions would command a compensation many times that which he obtains as a teacher.

Below these highest figures it may be said in general that college and university professorships yield from \$2,500 to \$4,000 a year. There are exceptions, for in many of the smaller colleges, particularly in the West, the professor's stipend is but \$2,000 or less; while in some of the largest colleges and universities salaries of between \$4,000 and \$7,000 a year are sometimes paid. Where the salaries range above \$4,000 it is generally true, as for instance in New York City, that the cost of living

is so great that the compensation is large only in appearance.

Positions below that of professor in college or university are of many grades, with varying compensation. A young man who begins as an instructor may receive from \$700 to \$1,200 a year. If he enters as a simple assistant or teaching fellow his stipend may be as low as \$200 or \$250, in addition to certain privileges of free tuition.

In some institutions a pension system is being inaugurated which modifies considerably the manifest inadequacy of a teacher's financial compensation. By the terms of this pension system professors who have reached a specified age, having spent a specified number of years in the service of the institution, may be retired on a partial salary. This system is in operation as yet in only a few of the wealthier institutions of the country. Many boards of trustees who would be glad to adopt it feel that their resources are not as yet sufficient to warrant the step. Some such provision for honorable retirement would do much to offset the inadequate yearly income which can be expected by a teacher. Even with this provision it is manifest that financially the teaching profession offers as few attractions as does the ministry, and fewer than service in the army or navy.

Second, intellectual.

It is commonly supposed that one of the chief attractions of the teaching profession is the lightness of the work. On this subject many mistaken notions are current. The fact that a teacher's appointments hold him for only a few hours a day at the most, that he rarely has work assigned for more than four or five days in the week, and that the academic year covers far fewer days

than is the case in any other profession, naturally produces the impression that a teacher has abundance of time to do anything he pleases, and that the small financial compensation offered for his work is clearly just.

It is unquestionable that one of the great attractions of the profession is the large freedom which the teacher has from the fixed appointments for his time. Next to the clergyman, he holds the fullest control over the disposition of his days. If this freedom, however, is understood to mean ease and small demand for hard work, it is entirely misunderstood.

The amount of labor a teacher has to perform outside of all academic appointments is very great. The amount of time that he must spend with his books, in order to keep himself alive in his profession, is unlimited. The free hours of the day, the free days of the week, the frequent and long vacations, are to the earnest teacher opportunities for work which cannot be done in the presence of a class or in the midst of the interruptions of frequent appointments. So clearly is this true that the largest and intellectually most exacting colleges and universities of the country take the further step of allowing to the members of their faculties the privileges of absence from their posts every seventh year, with the avowed purpose of enabling these teachers to do work and secure intellectual enrichment which are not possible for them in connection with the regular routine of ordinary work. This leisure for study daily, weekly, annually, and in a few cases once in seven years, reasonably constitutes one of the very considerable compensations which form the attraction of the profession to those who enter into it.

Men choose to be teachers because they love study.

They find their largest delight in the company of books or of nature. The task which exacts of them this fellowship with minds human and divine is a continuous pleasure, and in order to assume it many men are ready to forego the larger material rewards which they might readily win in other walks of life.

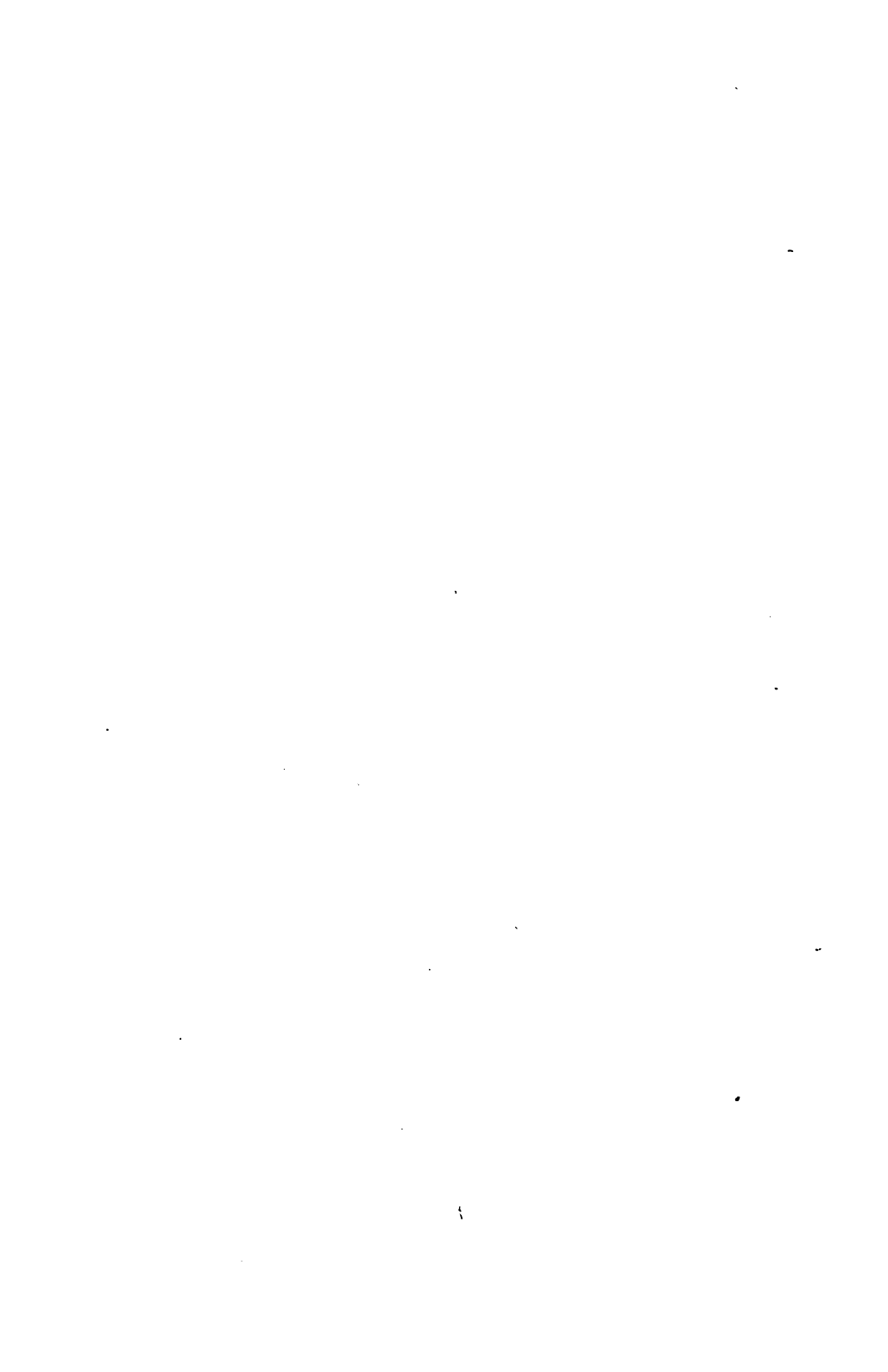
Added to this prize of opportunity for delightful study there is also the satisfaction of intellectual fellowship with other teachers. Like the devotion to study, this intellectual intercourse is essential to the most successful work of a teacher. A calling which bids a man assume as a duty what he would in any case choose as a pleasure has in this feature a power of attraction which wins many choice spirits.

Third, social.

Beyond the attraction of free time and intellectual fellowship the teacher has a further compensation, especially as he rises toward the higher positions in his profession, in the social dignity attaching to the life which he leads. In so far as in any community money makes the man, in so far the fact that a man is content with little money will cost him a certain element of popular respect. Where, however, the common estimate of life rises above the purely commercial level the dignity of intellectual leadership, of wealth, of knowledge, and of a life devoted to noble ministry, brings to the teacher a compensation which cannot be estimated commercially.

It is well for any community that there exist within it classes of honorable men who set some things in life above material good and comfort. It is contemptible for any community to excuse itself in rendering inadequate material compensation to the ministers of its better

life by appealing to those finer compensations which the teacher wins. Our people will some day blush at the meagre pay we offer to the noble men and women, who teach our youth. It will be a sad day, however, when young men with ambition to search for truth, or to impart it and mould the character of young people, are moved chiefly in their choice of life work by the consideration of the money compensations which may be offered by the profession of their choice.





REAR-ADMIRAL GEORGE WALLACE MELVILLE,
ENGINEER-IN-CHIEF, UNITED STATES NAVY.

THE NAVY.

Whatever else resulted from the Spanish-American War, it is certain that it brought the navy into fuller knowledge and closer touch with the mass of our people. As the work and purpose of the organization have been more carefully studied, it becomes evident that either by force of circumstances or by manifest destiny the navy must eventually become the strong arm of national defense.

It is highly probable, therefore, that in the early future a representative from every village and hamlet will be found either on the forecastle or quarterdeck of one of the war vessels that carry the national standard. It thus becomes of direct interest to hundreds of thousands of persons, who are directly or indirectly connected with the service, to know something of the possibilities that are offered by a career in the navy. It is also of national

import that those who are taxed for its maintenance, who glory in its triumphs, and who suffer in the defeats of a navy, should be made acquainted with the traditions, inspirations, and encouragements that prompt men to choose a calling which often entails the sacrifice of home, and which may even demand life for flag and for country.

The navy is a paradox. There is within it the pride, culture, loyalty, and imperiousness of an aristocracy, and yet the love of the commander for his crew and the affection of the sailors for their officers are representative of the ideal democracy. The whole trend of the naval life is to cultivate strong friendships, induce men to be fearless in the discharge of duty, demand efficiency upon the part of the individual, and honor the unassuming. There is an indefinable power in a lifework at sea that tends to bring out the best in the man. The sea in its fury, and even at times in its calm, has a tendency to make all men feel their nothingness, and it is not surprising that where men in common have shared triumphs, endured perils, seen the wonders of the deep, and have even at times felt the presence of a stronger power, they become bound by a tie that often causes shipmates to be loved even closer than a brother.

The nature of the work of every navy compels its standard and methods to be compared with those of other services, and therefore efficiency and integrity prevail. But there is extreme conservatism also, and it is amazing how tenaciously the sailors strive to adapt the traditions and customs of the wooden brigs of the sailing period to the battle-ship of the steam age. And yet there is something that appeals to the best that is within men in the effort of the sailor to preserve the traditions of the sailing age—an age of romance, for there was excitement in the

taking in of a topsail that is missing in the mechanical labor of operating a motor or running a winch.

In seeking a career in the navy one therefore finds opposing him the conservative social conditions and customs of an aristocracy, while at the same time he is impressed by the simplicity, efficiency, and high character of his professional superiors.

The work of the navy differs from that of all other callings by reason of the fact that mediocrity in results cannot be endured. The shot that does not hit does not count. The engine that cannot be forced to secure all that it was designed to do may prevent the war-ship from performing the mission upon which she was sent. The officers who do not within themselves show a good example of efficiency and patriotism are not fit representatives of their country in foreign harbors. The commander of a vessel or of a fleet who cannot in time of emergency show that he possesses rare diplomatic ability lacks one of the primary elements of a naval leader.

Whether the country be at peace or at war the highest discipline and the best efficiency must be maintained, and it is for this reason that the navy cannot rest content with commonplace work. It does not require a war to bring any naval weakness to the attention of the country. As it is expected that the ships will go to sea, and be sent to distant harbors where there are neither repair facilities nor reserve of supplies, self-preservation compels all hands to see that efficiency is maintained, and this is why the strongest and best navies can be made ready for service at short notice.

The latest type of American battle-ship, when ready for commissioning, will represent a greater actual cost than the beautiful Congressional Library erected in the

city of Washington. In all probability if an emergency order was given in both cases, the library could be completed sooner than the battle-ship, and the depreciation of a ship will be several times as great as that of the building.

It is because depreciation must be prevented and efficiency maintained that there must be assigned to every modern war-ship a large complement of highly trained and educated officers, as well as a skilled and resourceful crew. The number of officers of high rank in the navy must therefore necessarily be great. There must likewise be among the enlisted force a very large percentage of men who receive high pay, and who are accorded respect and consideration. In all probability the average pay of those on board a war-ship is over double that received by troops in barracks or in camp.

The opportunity for professional advancement is also very much greater on shipboard than on shore. The man who possesses technical skill, application of purpose, and power of resource, whether he be an enlisted man or an officer, will have an opportunity during the three years' cruise in home or foreign waters of steadily improving himself. It is the certainty of quick promotion for the officer, good pay for the men, and opportunity for both of securing increased knowledge, as well as loyalty to the flag, that should make the navy a career that should be sought by tens of thousands of young men, who now know nothing about the service.

In analyzing the advantages and inducements that should influence many young men to spend several years in the navy, it may be best to tell first what is offered to the enlisted force.

The first thing a recruit learns upon joining a naval

vessel is the necessity of implicit obedience. It is an old saying that "the captain of a war-ship is' an absolute despot," and if any commander cares to exercise the power that is vested in him this epigram practically expresses the truth. The traditions of the service, however, as well as sound judgment and self-interest upon the part of the commander, seldom tempt him to exercise such a prerogative. The enlisted man who tries to do his duty, therefore, suffers very little from the yoke of discipline. In fact, it is a protection to the man well disposed to do his duty, since severe measures are only taken against those who are inclined to disobey the rules and regulations that have been found necessary on board a ship where men are crowded together.

If it be true that cleanliness is next to godliness, then thousands of recruits in the naval service are benefited by what they witness on board ship as respects cultivating the habit of being neat and attractive in person. From truck to keel and from stem to stern, some one is held responsible for the cleanliness and good order of every compartment and tool within the vessel. It is due to this fact that the health of the crew of a war-ship is so good. The clothing is frequently and carefully inspected, and that man is regarded as a disgrace to the ship and to the naval service who is not interested in keeping his clothing, the vessel, and himself exceedingly clean. This may seem an unimportant matter to some persons, but I believe that the good resulting from the effectiveness with which cleanliness is impressed upon man-of-war-men cannot be overestimated.

Then there is a certainty of promotion and increase of pay that must be taken into account. The demand for leading petty officers is so urgent in the naval service that

practically all the commanding officers are willing to give men advancement every six months, and in some cases promotion is accorded at shorter intervals. Some of the warrant machinists now in the navy, receiving \$1,500 per annum, secured this promotion in less than two years from the time they entered the naval service, and this is evidence that the officers of the navy are exceedingly desirous of rewarding specially deserving men.

Two years ago the Congress of the United States passed a law whereby any boatswain, gunner, or machinist who had been six years a warrant officer, and who could pass the examination prescribed by the department, could secure a commission in the naval service. Several gunners have already been commissioned ensigns in accordance with the operation of this act, and an extension of the opportunity to secure a commission will be accorded to the enlisted force, if the men who are promoted to such rank should show by their conduct and duty that it is advisable further to recruit part of the commissioned *personnel* from this source. The opportunity therefore presents itself for any apprentice boy eventually to command a fleet.

The advantages accruing from the opportunity of visiting foreign ports and of observing foreign methods and customs cannot be measured. Such opportunities come to the enlisted force, and it is their own fault in most cases if the men do not secure valuable information from this great privilege.

Considering the opportunities an enlisted man in the navy has for acquiring increased technical skill, noting foreign methods, securing advancement in pay and place, and of developing manhood and character, I unhesita-

tingly recommend young men to seek a career in the navy, even though a commission may not await them.

The man-of-warsman of today is quite a different character from the counterpart of a century ago. It is no longer good form even on the forecastle to return drunk from liberty and to swear like a trooper. In fact, the complaint rather comes that the dress suit is taking up space that should be used for rain clothes, and that the laundry list of the men is approaching that of the officers. Whatever else such facts show, it is proof positive that there is an atmosphere of culture and refinement on the berthdeck that never existed before. This makes for an efficient navy, because the naval conflicts of the future will be short, sharp, and decisive, and men of intelligence and resource, rather than of brawn, are needed on the forecastle as well as in the cabin and wardroom.

It will certainly count for the happiness and self-esteem of a man in the retrospective of old age that he gave some, if not all, the best years of his life to the service of his country. Even the Crown Prince of the German Empire is compelled to perform some military or naval service, and when the accession to the throne comes there is not one of these reigning monarchs who does not proudly refer to the military service that he performed as a youth. The man who could not refer with pride to such service in the navy is lacking in some attribute that makes up the patriot, and an injustice is not done him in asserting that he is almost without manhood and self-respect.

As the navy offers much to the enlisted man, it ought and does offer more to those who have been honored by receiving a commission in the service. Such a commission may open the doors of the homes of the gentle, cul-

tured, and refined, and ought to secure the esteem of those who are leaders in the industrial, social, and literary world.

It insures an income sufficient for necessary expenditures. While the pay of the naval officer is in many respects inadequate, considering the expenses to which he is subjected, yet it permits an officer by economy to live in a manner fitting his rank and position.

A career in the navy gives every officer who possesses application an opportunity to specialize along particular lines. The opportunity also presents itself for such an officer by travel and observation to acquaint himself with the strength and weakness of other nations; to acquire their language, to read their best literature, and to note the great works that have been wrought by the master minds of those countries.

Service in the navy does not unfit either the enlisted man or the commissioned officer for a business career. Probably the best answer to the question as to whether or not the navy trains men for a future career can be given by noting the success of the thousands of business and professional men now in civil life who once mustered on the quarterdeck of some man-of-war.

A great change has been wrought in the navy during the last twenty years, and therefore the new navy offers quite a different career from what presented itself in the past. Gone are the seas of snowy canvas which propelled the old ships of the line amid the long and heavy billows of the several oceans; gone are the clewlines and buntlines, the halyards and braces, the tacks and sheets, and the endless mass of rigging that was such a delight to the sailor of the previous generation; gone is the inspiration that came to the royal yardman as he

clambered aloft in a stiff breeze or gale; gone in great part is the romance of the sea, for the weather gauge of the enemy is now secured through the skill and endurance of the fireman rather than by the handiness and readiness of the seaman.

The strenuous life now prevails on shipboard as well as on shore, and the seaman of the new navy, in operating the countless mechanical appliances that are installed on shipboard, is as useful as his counterpart whose principal work was above rather than below the main-deck. The sailor of the new generation must keep all his senses on the alert; his ear must be trained to detect any variation in the rhythmic beat of the pistons and propellers; his eye must note any leakage of water or of vapor or any change in conditions; his touch must be sensitive to the temperature of the working parts, and even his tongue must be a monitor in helping to maintain the freshness of the water in the boilers. But above all he must have that high courage which does not demand the plaudits of his comrades or the sight of the flag to nerve him to do his best work.

Although the sails have passed away and the new conditions have come to stay, there are those who attempt to resist the inexorable tendency of affairs. This conservation would adapt the organization of the ships of oak to the new vessels of steel. The old organization went with the old ships, and, in the words of President Roosevelt, "The naval officer of the future must be a fighting engineer." And therefore a career in the new navy, for the great majority of those who are connected with the service, must be along mechanical lines. It was not an easy task to bring this development so rapidly about, for in some quarters it was regarded as a

revolution rather than progression. It has always been a hard battle to overcome the traditions and prejudices of the past.

In years past there has been no policy pursued in the development of the navy, and therefore the inducements for seeking a naval life as a career have not been so great as now presented. At times the navy has been petted and coddled, and then again it has been neglected and assailed. It is possible that there have been controlling forces which have made the service so exclusive that its work and purpose have never been understood by even the Congress.

In the words of another :

"Its highest possibilities will be reached when it recognizes the fact that no coterie, or class, or clique, should dominate except so far as it has won the right by sheer merit and by that unselfishness of which for all time the great admirals have been models of undying memory."

And this unselfishness must recognize the brotherhood in arms, both in time of peace and in the stress of battle, of all who serve on the vessel, whether their duties relate to rationing or clothing the men, comforting the sick, maintaining discipline, operating the motive power, or fighting at the gun.

That navy only is worthy of the affection, love, and support of the people which offers a career to every man responsible even in part for the efficiency of the ship.

As the navy offers much, it expects much. From time immemorial it has been regarded as a privilege to be intrusted with the duty of guarding the liberty of the republic and sustaining the honor of the flag. And therefore the country believes that a career in the navy is representative of efficiency, integrity, and manhood, and

that those who serve their country well on the high seas are entitled to the rewards and emoluments that should go with duty conscientiously performed.





CHARLES STEWART SMITH,
EX-PRESIDENT OF THE NEW YORK CHAMBER OF COMMERCE.

THE COMMERCIAL LIFE.

A few men of genius have engaged in several professions with equal success, but ordinary mortals must be content to select but one. Men are judged by their achievements. The old saying, attributed to a Roman sage, "It is better to be the first in a village than the second in Rome," means that leadership in one's calling in whatever place or position is the goal.

Any young man with good health and fair abilities, with such education as is freely offered to all in this country, may enter the race. If he is poor, his chance is better, as he will better appreciate the meaning of that stern word "Must." The rich man's son is generally handicapped by his environment. The boy is the prophecy of the man. If, before he arrives at thirty years, he has not shown the stuff of which he is made, little can be favorably predicted as to his future. There are ex-

ceptions to this rule, however. Cromwell did but little to foreshadow his great career until after fifty years of age, and yet, in Froude's opinion, he became "the greatest soldier and the greatest statesman that the English speaking race has produced." If wealth or fame, literary, scientific, or artistic accomplishments are desired, they can be had, if one will pay the price. The prize is within the reach of every man.

The conditions of eminent success are inexorably hard ; only a few will make the sacrifice.

First—One must believe his adopted vocation is for life, and he must work like a gladiator. Patient, untiring industry always receives its reward.

Second—To be a "society man" and a lover of pleasure is fatal to success.

Third—Only such recreation as is necessary to preserve health is permissible.

Fourth—Intemperance and excesses of all kinds are barred out.

Fifth—It is mandatory to rise early with a clear brain refreshed by necessary rest. Morning is the best time to work, as the proverbs in all languages testify.

Sixth—If occasion demands it, one must face the strictest economy in diet, dress, and all home surroundings.

If a young man faces resolutely the conditions without which great success is impossible, is willing to bide his time and make all things earthly subservient to that end, then it matters little in the result what occupation he chooses, provided it is honest and he arrives at the head.

The commercial career includes the commercial, financial, and industrial interests of the world. Commerce is among the oldest of human occupations. It began

about as early as anything human began. It has been the advance guard of civilization in the unknown quarters of the globe. It has been the patron of literature, science, and art, and has always defended liberty of thought and speech; and, in the eloquent language of John Morley, it has been "the emancipation of conscience from power and the gradual substitution of freedom for force in the government of men." It has united foreign nations in friendly intercourse by trade relations, and has reduced the chances of misunderstanding which otherwise would have resulted in destructive wars. It was largely the influence of English and American merchants, for example, that brought about the arbitration settlement of the Alabama claims.

The great commercial man must necessarily be one of the most intelligent and broad minded men in any community. His mental vision is expanded by intercourse with his contemporaries in all lands, and enriched by travel. He cannot be narrow in his judgment and conclusions. He must understand the laws which affect credit in the various states of his own country and in foreign lands. The effect of storm and sunshine and drought upon the world's harvests must be his constant study, as well as financial tendencies and the course of exchanges. He must be able to analyze statements and detect flaws and misrepresentations. English statesmen like Sir Robert Peel, Gladstone, Bright, and Cobden have been merchants or members of merchants' families. The same is true of distinguished members of Congress in this country. John Bright told the writer that he considered his mercantile experience had been of great advantage in the performance of his duties in the House of Commons. Mr. Bright also said that he thought our Amer-

ican halls of legislation contained too many lawyers and too few business men.

More than 90 per cent. of commercial transactions are conducted upon credit. Capital is an important element, but the basis of credit is individual character. No man without absolute integrity (although he may make money) ever ends his career as a great merchant. Dishonesty in commercial affairs is not infrequent, but a large majority of merchants are strictly honest from principle rather than policy, and if this were not the case stagnation in commerce would ensue.

If the foregoing is true regarding a mercantile career, then it is true that the ideal merchant must be a man of capacious mind and of varied acquirements. He must be a student of commercial law, of history, and geography. While English is the language of commerce, he should become familiar with the foreign languages of commercial nations. If the commercial ideal is so high as to make the young aspirant fearful of its realization, we make reply that the picture is drawn from life and from observation of men that we know.

The question of the selection of a business career is practical but perplexing by reason of the wide range and immense variety of occupations open to the votaries of commerce. In answer to the question, "What shall I do to get on in life?" individual characteristics must be carefully considered.

In merchandizing the inevitable and irresistible tendency to corporate combination must be reckoned with, as the day of small capital and moderate business is passing away excepting for dealers in unique specialties. Enormous department stores, like Macy's and Wanamaker's beginning with drygoods as their principal busi-

ness, now undertake to supply under one roof, nearly all the necessities and luxuries needed by an ordinary family, with great saving of time and expense to the purchaser.

Reduced expenses and enormous transactions with moderate percentage of profits have made these establishments financially successful. Macy & Co. employ about four thousand five hundred persons, not including their European connections or those in their service at different points in this country. John Wanamaker employs five thousand people, and his business is divided into one hundred and twenty-eight separate departments. The young man who enters the department store must be content at first with salary sufficient to "make both ends meet" with economy, until he has demonstrated his fitness to be a manager of a department, when he may hope to become a salaried man at five thousand dollars a year and upward.

Representative drygoods jobbing establishments which have also large retail connections, like H. B. Claflin & Co. of New York and Marshall Field & Co. of Chicago, are, in the volume of their sales, the largest of their class in the world. The coveted places in these concerns are those of the buyers and managers of departments, who receive large salaries and often have a percentage in the profits of their own departments. The salaries of general clerks and salesmen average about the same as those quoted in the banks in this article.

Marshall Field & Co. of Chicago, employ, approximately, ten thousand persons, and their business this year will aggregate sixty million dollars in volume. This enormous business has been created during the lifetime of one man, who is still in active life and the senior part-

ner in this colossal establishment. These facts are a striking demonstration of commercial progress in the United States during the last half century.

In a bank or trust company, a clerkship is often said with truth to be a treadmill with small chance of advancing beyond a salary of from two to three thousand dollars, unless one's energy and ability mark him as a candidate in his own or another institution.

The salaries range in banks of New York as follows:

	Per annum.
Messenger (the lowest position).....	\$ 300
General clerks, etc.....	\$ 800 to 1,000
Bookkeepers	1,500 to 2,500
Tellers	3,500 to 4,000
Cashiers	5,000 to 7,000

The large private banking houses offer more chances for advancement. A career with them (as Napoleon said in taking command of his army) is "always open to talent." Exceptional young men always come to the front.

Wall Street's history abounds in success and failure. Conservative firms and individuals who are not tempted to overspeculation generally succeed there as elsewhere. Mere speculators must take the chances which panics periodically offer of illustrating the ups and downs of Wall Street life.

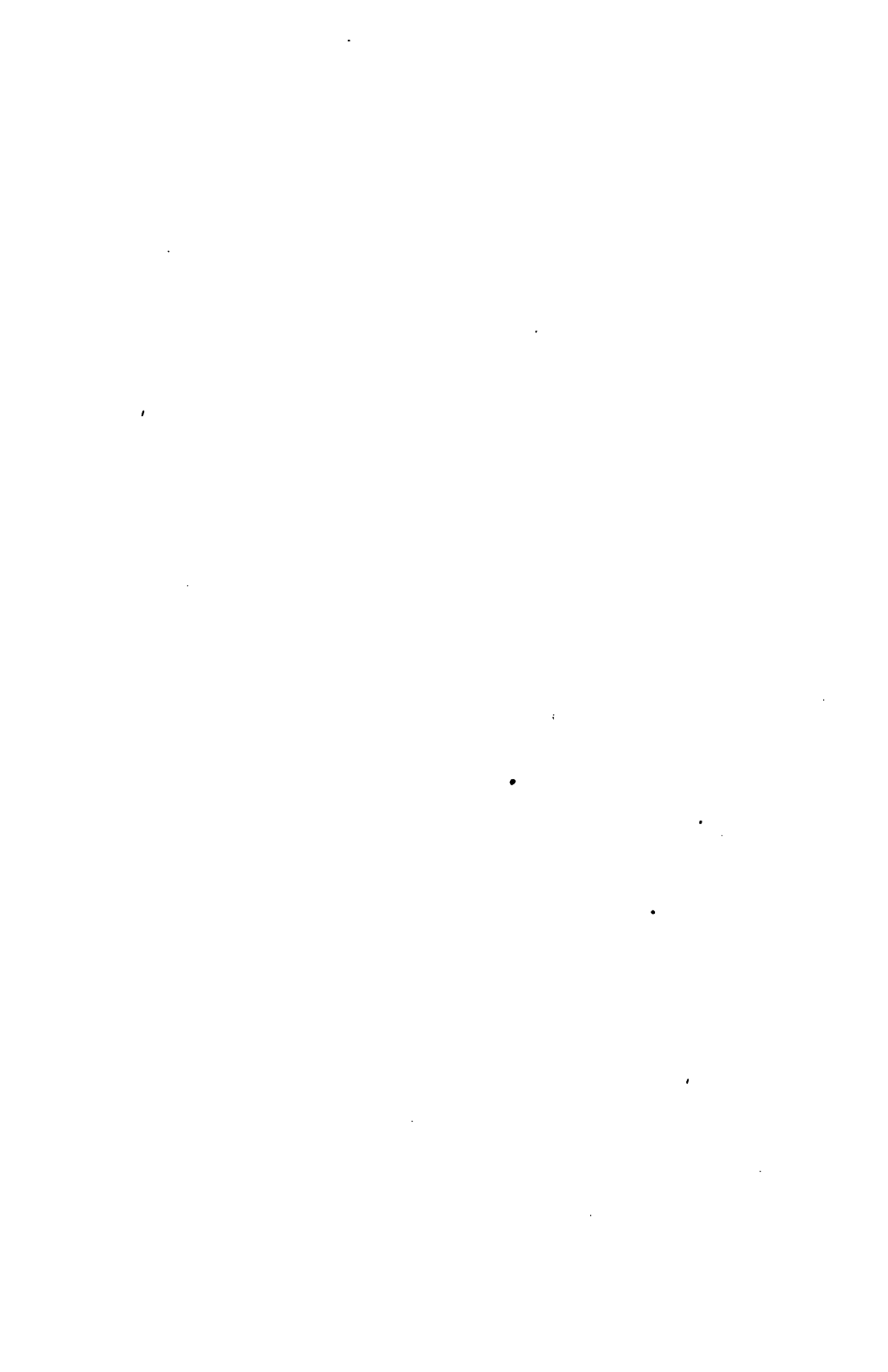
In manufacturing there is little hope of success without specially trained experience. The most successful managers of large mills have learned by actual labor all the various processes of scientific and economic handling, from the raw material to the finished product, and such men command large salaries and are always in demand.

More large fortunes in this country have been made

during the last forty to fifty years in railroad connections and in reorganization of the same than in any other avenue of commerce. Carnegie in early life was a freight superintendent on the Pennsylvania Railroad, and many of the executive officers in that great company have come up from the ranks. The advantage of knowing by personal service the duties and qualities of subordinates is one reason for the eminent success of the Pennsylvania Railroad. The brightest men in the country are bid for by the great railroads, which consider no price too high for the man they want.

The fact that the possessors of fabulous fortunes created in commercial careers have shown themselves conscientious trustees of wealth has created an epoch in human progress and will give an unique historic interest to the closing years of the nineteenth and opening of the twentieth centuries.

The next step in this moral development will be an equally conscientious regard for the rights of others, by the application of the Golden Rule in the acquirement as well as in the distribution of their vast accumulations on the part of the holders of great possessions.





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THE CHURCH.

To the thoughtful young man, desiring to make his life count for the most possible and to bring forth the most substantial life-product, the question does or certainly ought to present itself: What opportunity in these respects does the Church offer? This question may be apart from the sacredness of the office, since it is asked by a youth who is seeking not a sacred calling but an effective one.

The limits of this article exclude those considerations in favor of the Church which arise from the spiritual character of her work—considerations which, in the eyes of a churchman, are the most worthy a young man's attention and determinative of his decision. The same limits, however, make possible the presentation of other considerations, which, though less exalted and less potent than the spiritual, are not less real, not less worthy atten-

tion, and not without a convincing power of their own. But it must be borne in mind throughout any discussion of this subject that whatever may be true of any other calling, it remains everlastingly true of this, that no man may enter it, being moved thereto by base or selfish motives. This is a tree whose best fruit does not grow close to the earth, and the man whose eye is not single, whose heart is not clean, whose arm is not bare for the right, who does not stand upon his own dead self, may not pluck even its lowest growing and poorest fruit.

The Church cannot be said to offer financial attractions to those who serve her. This is obvious to the most casual observer. Her positions are all salaried places, even those highest up in her service. The salaries are usually meagre, and when large, as they are in a small percentage of instances, they are only such in appearance, since this is the one profession in which the compensation given is not graded according to the worth of the man, but according to his necessities. The metropolitan ministers who are receiving, say, ten thousand dollars a year, are expected to live somewhat after the same fashion as parishioners who have an income of five or ten times that amount. Most of the clergy receive salaries that are prolific of preplexity, if not of actual poverty. The amount of emoluments of this office are out of proportion to the needs of the incumbents, the quality of the service rendered, or those obtained for like service in other occupations.

While the financial inducements to the service of the Church are not alluring, there is a significant fact which must not be overlooked. The clergyman's official position is an open sesame to every home and to all social life. While other men, personally as worthy as he, find

their social life determined for them by their income, he moves freely in the best society, enjoying its hospitality and incurring no social obligations. Thus the financial disabilities of his office are somewhat relieved by the compensating social advantages it brings. It nevertheless remains true that no man desiring to become rich will be deceived into seeking wealth through this office. Those who enter it must be lured by other rewards.

The strenuous life is supposed to have fine attraction for the purposeful youth, and this life, in the opinion of many, is not to be found in the service of the Church. The reasons for this opinion are obvious. The clergyman necessarily passes much of his time away from the observation of men. Books are his companions for several hours every day, and for most men reading and leisure are synonymous. Such times as he may appear among his fellows are apparently dress parade occasions, all right for showing off him and his accomplishments, but without merit as occasions for producing appreciable results. As a forceful man among men he does not compare with the man of business, or even with other professional men, as the doctor and lawyer. Not infrequently he is a man of refined and sensitive nature, not used to giving or receiving hard hits, with a flavor of other-worldliness about him and a suggestion that he belongs to the category of women and children rather than that of men. His office bars him from much that is open to other men, and puts him in his association with men in a class by himself. On the whole, he is shut up to a narrow and narrowing life.

This is not all in the seeming, and constitutes a real disadvantage for the clergyman, yet it is only one side of his life. In the debates of our school days as to whether

the pen was mightier than the sword, the honors fell to the former quite as frequently as to the latter. The clergyman wields the pen, not in the sense that he is a writer of literature, but in the sense that he is one of the comparatively few men who are conquering the world with the power of ideas.

No age has given clearer demonstration of the might of thought than has this age, with all its materialism. It is the man with brains rather than the man with brawn who is the effective man in the combinations of labor as well as those of capital. The man with the hoe we do not despise, but he is not in the running with a man who owns a steam cultivator, which is but one of the million signs this age is giving that ideas are mightier than deeds and that the thinker is the most effective of workers.

The clergyman's tools are all in the sphere of thought. He has no others. With these he must do his work, but this is only another way of saying that he handles the mightiest implements and is in a position to be the most effective of men. To him is given the opportunity of moulding thought and directing life. He puts his hand on the springs of action in individuals and communities and wields the forces that determine the destiny of men and of nations. He belongs to the glorious company of the world's prophets who are set over nations and over kingdoms, and by their words pluck up and break down and build and plant.

For men, nations, institutions, enterprises are not built up or destroyed by the action and interaction of natural forces, but by men whose "words are sacraments divine," and the servants of the Church are prominent in this company of the prophets who effectively "bid earth's glories set or shine." The clergyman plays with some-

thing far more subtle, far more powerful than the electric current, something far more influential in binding the world together and in bearing its burdens. If he accomplishes but little with it, he may better look to himself for the explanation of his failure than to his office. The calling that puts a man into the most intimate touch with the world of thought and allows him with a minimum of distraction and maximum of opportunity to utilize the power of ideas, is one that may well attract the serious young man who craves power among men.

But this is not all that can be said for the strenuousness of the minister's life. It may not be denied that it offers fine advantages for a lazy man to indulge his tastes, but of course such a man among the churches, like the Bowery "good thing," will be "pushed along." Yet its work is of a kind that is never finished and its fullest reward is hard and unceasing toil.

The man who is looking for work can find it here and in abundance. If he be a capable man—and no other need apply—he will find in his work and through it growing influence. He gains skill in managing men and in directing affairs. He gets the power the politician has in bossing his party, that the general has in conducting a campaign, that the captain has in piloting his ship along the invisible highways of the sea. The men who have felt the exhilaration of spirit which comes with such power know that it comes to the hard and unwearying worker alone. No other tastes its sweetness. Among these men of influence the clergyman has an honored place because of his office, but more because of his unremitting labor.

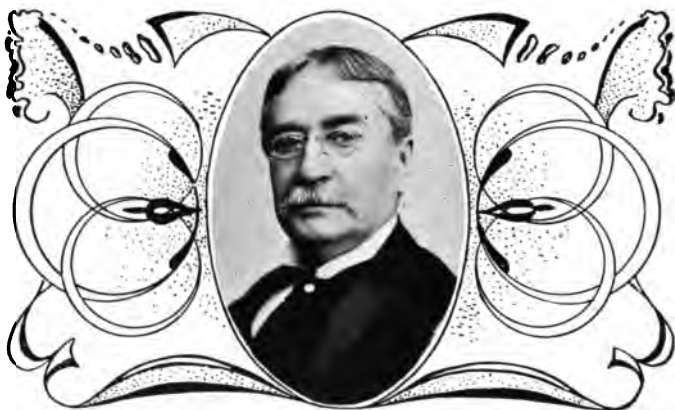
The clergyman finds that his work for the most part is dealing with human nature, and human nature at its

best is often unlovely, and at its worst may easily repel the stoutest of heart. The diseases of the mind, its ill-temper, conceit, sordidness, selfishness, working out in a thousand manifestations, are far more repulsive, far more intractable than the diseases of the body. These are the diseases with which the clergyman has to deal. They baffle his skill, destroy his peace of mind, determine the limits of his success, and conspire to secure his failure. The game is not worth the candle. To fritter away his life in bearing with the unreasonableness, or worse, of parishioners, in preaching truths that few believe and fewer still practice, in trying to save those who are bent upon their own destruction—is it worth all that it costs? Rather let a young man go into some occupation more worthy a man and that offers better rewards. But can he? After all, is there any more satisfactory activity than just this same of curing the spirits of men? If that man is a benefactor to his race who makes two blades of grass grow where but one grew before, how much more is he who is the cup of blessing to a soul in some great agony, who begets the smiles that have no cruelty, who belongs to “the choir invisible, whose music is the gladness of the world?”

The clergy belong to the great educational forces of the world. They are among the great inspirational forces in the life of men. They are set for the enrichment of human life, for purification of the fountains of action, for the uprooting of the evils that afflict mankind, and for the assuaging of the woe of the world. The man who is looking for the material rewards of life will hardly be tempted to join their company; but he who has a high ambition to spend himself in noble deeds without thought of self will have an ear for the Church's call.

To answer that call with all one's heart and life is to
take rank with

“Those immortal dead who live again
In minds made better by their presence; live
In pulses stirred to generosity,
In deeds of daring rectitude; in scorn
Of miserable aims that end with self;
In thoughts sublime that pierce the night like stars,
And with their mild persistence urge men's minds
To vaster issues.”



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D. B. ST. JOHN ROOSA, M. D., LL. D.,

**PRESIDENT OF THE NEW YORK POST-GRADUATE MEDICAL
SCHOOL.**

MEDICINE.

Probably no one of the professions has made more progress in the nineteenth century, and stands in a more advanced position at the opening of the twentieth, than that of medicine: The invention of general anæsthesia by ether and afterward by chloroform; of local anæsthesia by cocaine; the determination of the cause of supuration in wounds leading to antiseptic surgery, with all its possibilities of cure by surgical operations of what was before incurable; the discoveries in the laboratory of the origin of disease, and the toxines with which to combat it; the newly acquired power to prevent epidemics; the invention of various instruments to examine the hidden parts of the body, as well as a new source of light by which even the skeleton is plainly seen, with numerous other advances, open a great field for him who is properly fitted to enter upon the practice of medicine

and surgery. But not every one can be made fit for the life that is to be lived if one practises conscientiously in such a profession. Not every one who has an impulse or a fancy for this profession should undertake it. Failure and disappointment await those who have here attempted to build a house without counting the cost.

It is not likely that a paper like this will deter many young men obviously unfit for the strenuous life that it involves from entering into the medical profession. But, as this series of articles is intended for parents who wish to guide their sons in their choice of a calling, it may be of service to them to know how to give a requisite encouragement for perseverance to those who ought to persevere, and how to dissuade those who do not realize what they have undertaken. Just as sons of soldiers very often become soldiers, and those of clergymen go into the church, so sons of doctors form a large contingent of the medical students of this country. For them none but paternal advice and example are required. But for others much may be said that will assist in making a choice of callings.

There are several things to be considered in determining the question as to adopting this calling. The young man who purposes to study and practise medicine should have a good physical constitution. It may not be necessary that he should be absolutely up to the mark which would enable him to pass the physical examination at West Point, but a boy should not start out with preparation for the study of medicine unless he has a sound mind in a sound body. There are other professions in which by a careful life, with an avoidance of certain exposures, a young man may be successful, in spite of many physical defects. But in the ordinary life

of a practitioner of medicine, in town or country, there are too many unavoidable hardships to encourage a boy or a young man with a feeble physical system to set out in it. It ought also to be said that the highest standard of ethics and morals is required of him who aspires to a place as a physician, and by this term I comprehend all that is implied in the title, involving as it may in this country what is called general practice, medicine, surgery, obstetrics, one of the lesser specialties, like that of the eye, and so on. No young man is fit to take the sacred responsibility of the care of the body of another human being, a body which is the temple of the soul, or to be intrusted with the personal history of his patient, unless he has the qualities of reticence and a high sense of honor, added to a kindly, tactful disposition.

The health and morals being assured, the next point is the educational preparation. There was a time in the United States when large numbers of young men came from the district school to the medical college. In the State of New York that day is wholly passed, and to the great advantage of our people. No young man ought to be allowed to enter upon the study of medicine anywhere without having given evidence of a preliminary qualification fitting him to understand the studies that he is to undertake. This is provided for in the State of New York and in few others, notably Pennsylvania, New Jersey, Virginia, North Carolina, and Illinois. The Regents' preliminary examination for entrance upon the study of medicine in our State cannot be passed by any young man unless he is a graduate of a high school, or has acquired about the equivalent of the freshman and sophomore years in a good college. If he is a Bachelor of Arts from any respectable college, he is admitted with-

out question. But this being wanting, the qualifications for admission are about what I have stated.

The ideal preparation, it seems to the present writer, is sufficient knowledge of Latin and Greek, or mathematics and of the English language, geography and history, to enable a boy to enter the freshman class in such a college as Amherst, Union, Oberlin, or the like, and then to pass the full period of four years in such a college. It does not seem to me that a man is any better student of medicine for having entered Yale or Harvard and passed through the courses, very largely elective, choosing for himself what are either agreeable or what are supposed to fit him to enter upon the study of medicine. I do not think the permission now granted in some colleges to call the senior year the first of medicine is of any great service. I believe the young man who wishes to study medicine should not enter upon the special studies necessary for a proper comprehension of his duties as a medical student, such as physiology and biology, until he has actually begun the studies leading directly to the degree of M. D. The prosecution of several studies leading up to the study of medicine, in an undergraduate college, takes away time from the general culture needed for a learned profession. In other words, the study of medicine, directly or indirectly, need not be begun until the medical school is reached. Since it is important for a young man to begin the study of medicine not later than his twentieth year, it would be preferable for him to leave college at that age, if the requirements for admission have been so great that he could only enter as a freshman in his eighteenth year. In school life or in college, French and German should be thoroughly studied, and by the ear. A medical stud-

ent who wishes to take a high rank in his profession should be able to read French and German; still better, to converse in these languages.

But such a preparation as this is ideal. No end of young men become successful and even distinguished practitioners—certainly very useful ones—without such a preparation as this. But this should be had if a high position be sought. Under no circumstances do I think Latin and Greek are to be omitted in the preparation for the study of medicine. How can a young man ever have a real comprehension of what is meant by the Greek and Latin anatomical and therapeutical terms, used so freely in medicine, without knowing something of the etymology of the Latin and Greek languages? Without such knowledge it is a difficult matter of memory to learn such anatomical terms as levator anguli oris, latissimus dorsi, deltoid, os brachii, sphenoid, hundreds of which a medical student must have at his tongue's end. A young doctor ignorant of French or German will be none the worse practitioner, although less accomplished in medical literature at first hand, but if he does not know enough Latin and Greek to comprehend anatomical descriptions and the names of symptoms of disease, he can never be at home in his profession. If he desire to be a teacher of medicine in a university, to make really new observations, and thus add to the knowledge of the world, he should prepare himself with a knowledge of the modern as well as ancient languages, besides all his technical training.

I do not think a medical student should think of going abroad for purposes of medical study until after he has acquired the right to practise in his own country. The only exception I would make to this is where the circum-

stances of the family allow them to take their boy, before he enters college here, to France and Germany, in order that he may learn to speak French and German. Such a condition must, of course, be entirely exceptional. But, strictly speaking, the medical education of an American should be acquired in this country. With many of the fellow members and teachers of my profession, I am by no means perfectly satisfied with some of the teaching in undergraduate medical colleges. Anatomy, chemistry, and physiology are taught with absolute perfection. But when it comes to what may be called "learning how to do things," learning to practise medicine and surgery, even in the best colleges, there is too much of the so-called didactic lecture, and too little recitation and actual observation of disease by the student himself, face to face with the patient.

The course of study in a medical college has lately been lengthened to four years, and the aspirant for a medical degree will find that he has four years of very hard work before him. The labor of his previous studies in school or college are as nothing to it. Much of this studying in the last two years may possibly be made more practical in the future. This was a subject discussed by eminent undergraduate professors at a recent meeting of the New York Academy of Medicine. Judging from the trend of the present day, the lecture without the patient will cease to exist in no remote future, and young men will be taught what to do for patients exactly as they are taught how to determine all the parts of the human body by actual study of the things themselves, by handling the bones and muscles and nerves, and looking with the microscope at their ultimate make-up.

At the end of his medical course in the university, as

things are now, the man who seeks a high place in the profession will still be unfit for entrance into active practise. If he is to practise in the country and act as the assistant of a man of large experience, he will have an excellent post-graduate course, and soon have an opportunity to demonstrate the usefulness of his training. If he lives in a great city, or if he seeks an immediate capacity to do anything that may be required in a busy general practise, he should above all things seek a position in a hospital as an interne; in plain English, as a member of the house staff. The importance of such a position to a recent graduate cannot easily be overestimated. The course is usually one or two years, and in most hospitals, until the last six months, the young doctor is personally guided and directed by his seniors on the staff; and when he has come up to be a fully fledged house surgeon he has the particular direction of the attending physicians and surgeons. But there are not hospitals for every young man who wishes to enter them; therefore other means of getting experience must be sought. There are, in large cities, various dispensaries for the care of the outdoor poor, where a young man soon acquires experience and the *tactus eruditus*. Besides all this, there remain the post-graduate medical schools of this city, of Philadelphia, and Chicago, where a young or middle-aged practitioner may refresh his anatomical, medical, and surgical knowledge by actually doing work in the anatomical rooms and being face to face with the patients in the clinics, acting, to some extent, as an assistant. The value of these schools, like the positions in the hospitals, is that they supplement the knowledge acquired in the college in a practical manner. A young man actually gets into practise without being wholly responsible.

The man who is to practise in a hamlet or a small village or considerable town should by all means fit himself to take care of anything that may come along—a bleeding blood vessel, a dislocated shoulder, a fractured thigh, a wound of the eye, a scalp wound, typhoid fever, pneumonia, or cases of labor. It may not be necessary for him to learn to perform the formidable operations which only special surgeons can qualify themselves to perform properly—such operations as those for appendicitis, for great internal tumors, for cataract, growths in the larynx, and so forth. But, as such a general practitioner, he should be able to do the right thing for every emergency case, so that there may be no harm to the patient from the delay of ignorance. He should know enough to recognize what is beyond his knowledge and capacity, and be brave enough to say so, and to get an expert in time. When the practitioner is to settle in a great city he may deliberately devote himself, after adequate preparation, beginning with general practise, to such specialties as general surgery, orthopedic surgery, ophthalmology, otology, and so forth.

As to the necessity of going abroad for the perfection of one's medical education, as things are now in the State of New York it is not necessary for any man to seek preparation for the thoroughgoing practise of medicine on the highest plane by going abroad. But, while it is not necessary, it is of the greatest use and enjoyment to a well-prepared young man to visit the clinics of Great Britain, Ireland, and Continental Europe, and to take private courses, in some instances, of some of the leaders of the profession, or even of their assistants. But fortunately this is no longer indispensable. Foreigners are beginning to come to the United States for special courses,

just as so many of us go to Europe. The day is not far off when, instead of a few, many will come.

It may be incidentally remarked that a thorough medical education is a great acquisition to men who never purpose to practise. The writer of this paper knows of instances where young men of leisure and wealth have been graduated in medicine, have passed through a hospital, who have never entered into practise, and have thereby increased their usefulness in the community a hundredfold.

Finally, what rewards may a man expect after having started out in good physical condition, having spent many years in preparation and who has finally entered upon the practise he has so much desired? In the first place, in this country, he will have an excellent social standing. He will be the friend of the lofty and the lowly, and be a welcome guest at any table. He will also, if his years are long, have the daily and delightful satisfaction of troops of friends. Especially is this so with a successful practitioner in a large town or in a wide countryside. In the cities the personal attachment may not be so great, the opportunities not being sufficient, the life being a little too strenuous; but even in a metropolis there will be an appreciation on the part of his fellow men that is a reward far greater than that which is to be conferred by money.

It will be seen from this account that to acquire the degree of M. D. involves a long and necessarily expensive course. Only young men with fathers able to see them through until they are twenty-five or twenty-six years of age can, as a rule, undertake the study of medicine in this State. There are no scholarships, no prizes in money, to be obtained. The young man must pay his

fees and his board, or he cannot go on. There may be some opportunities for earning money, but, as compared with what obtains in the study of divinity or law, they are very few. Only a few could bear the strain or have the time for more than university work. When the degree is obtained it gives no right to practise in the State of New York. There is then the examination of the State Board. But this need have no terrors for a graduate of a New York State or Boston or Philadelphia or Chicago college. He will pass it without trouble. It is only imperfectly prepared young men that have trouble here. But the examination takes time and there are more fees.

However well prepared, unless under exceptional circumstances, no young man will do any more than earn a bare living at the start. If he has no private pecuniary resources for two or three or even more years, after being graduated, he may find it difficult to live even in a very modest way. These statements as to the late day at which a graduate in medicine may begin to earn his living may be qualified to a slight degree by certain openings for young doctors of medicine that are made by our times. The army and navy always have vacancies in their medical departments. The examinations are rigorous, but well qualified young men can always satisfy them, and begin to support themselves as soon as their commissions are given them. Life insurance companies also are generally in need of young and qualified medical examiners, to whom a living salary is given. But ambitious young men who are well prepared often prefer to endure hardship for a season in waiting for practise than to accept these positions, which are, on the whole, less satisfactory to a man with aspirations than the avenues

opened in hospital or dispensary, joined to poorly paid and scanty private practice. Then again, a young graduate with a taste for literary work may get some assistance by working on the great weekly medical journals.

But all being said and done, the early years of medical practise demand much fortitude in order to pass safely through them. In the practise of medicine, however, there will be the intellectual satisfaction that comes to a man devoted to a scientific and humanitarian life, in his association with his fellows, either personally in the various medical societies of every degree that abound, or through the writings of his fellows, in transactions, journals, monographs or text books. If his mind be a kingdom to him, the doctor in medicine can rule over a vast number of subjects, who will entertain him at his will, either in the assembly hall or in the quiet of his room over the evening lamp, or as he journeys on his professional rounds.

As to ultimate financial success, it is very difficult to make comprehensive statements. The estimate as to what constitutes financial success varies much in different places. A successful practitioner of medicine will be able, in almost any community, to have the comforts of life, so far as his time will allow him to enjoy them. In the legitimate practise of medicine wealth is very rarely to be attained, however successful and however high the rank of the man who pursues it. It is true there are exceptions, but a close study of these cases shows they are really exceptional. No man should enter upon the practise of medicine with a view of acquiring a large fortune. Of course, there are some who, from various causes, do not even acquire the competence for the proper care of themselves and their families. But these are the

careless, the indolent, tactless men, the men of bad habits, and the men who ought not to have been in the profession. But it must be admitted that there are some also who deserved a better fate, who had not the means for a better preparation, or for whom the environment was too arduous.

Chill penury repress'd their noble rage
And froze the genial current of the soul.

But with all that may be truthfully said as to the severity of life in the medical profession, the occasional ingratitude of those who owe much to it, the inability to amass a great fortune, the want of appreciation by the general public of what it has already accomplished, there is no calling in which a well-prepared and competent man may have a more useful or a happier life, whether in town or country.



(Photographed by Notman, Boston.)

GEORGE H. DANIELS,

GENERAL PASSENGER AGENT, NEW YORK CENTRAL RAILROAD.

RAILROADING.

I am asked to give in a few sentences some idea of what is the best preparation, and what its average time and cost, for a young man intending to prepare himself for railway service as a profession; also to state what are the various departments to which a young man of good ability and education might reasonably expect to devote himself.

The term "profession of railroading" covers a very wide field, and may properly be divided into nine general departments; viz., the executive, financial, operating, accounting, traffic (subdivided into freight and passenger), legal, engineering, motive power and rolling stock, and purchasing departments.

I will undertake to speak at length of only one of these, presuming that later on some president or chairman of the board of directors will write about the executive de-

partment; some treasurer will enlighten you as to the details of the financial department; some superintendent will explain the intricacies of handling trains upon a modern railway; some comptroller may tell you of the mysteries of the accounting department; some freight traffic manager about freight rates and classifications, and the reasons why a higher rate should be charged on feathers than on lead; some general counsel may explain why the greatest lawyers of the age are in the service of the transportation lines; some chief engineer may write of how millions are spent each year to keep the tracks and bridges in order, so that the Empire State expresses and Twentieth Century trains may be kept going; some superintendent of motive power and rolling stock may give you details in regard to the locomotives and equipment of all kinds; and some purchasing agent may tell you how millions of dollars are spent to furnish each of the other departments with the machinery for the conduct of the business of the company, in accordance with the most approved methods of railway construction and operation.

I will devote the time and space allotted to me to explain a few points in regard to the opportunities offered by service in the passenger department. The position of this department may be best understood when you consider the fact that some of the great American railways are now being advertised in every country on the globe, and that it is conceded by those who have investigated the subject most thoroughly that the advertising done by the general passenger agents of American railways has been a potent force in the introduction of American manufactures and the adoption of American methods in the principal countries of the world, and that American rail-

way advertising has been the advance agent of American commerce.

Every well-organized passenger department consists of a general passenger agent and one or more assistant general passenger agents, among whom are divided the various duties devolving upon the managers of the passenger traffic of the company. There are nine separate and distinct sub-departments of the passenger department; viz.,

Advertising.

Ticket.

Rate and division.

Excursion.

Baggage.

Dining department.

General and passenger agents.

Ticket redemption.

Information and recreation.

I name the advertising department first, not that it is absolutely the most important sub-department, but because nearly every move made by the passenger department must be advertised, if the company is to receive the greatest value from the transaction, and the advertising must be ready in advance of whatever action is taken. The preparation of advertising is an important factor, and the man who is able to prepare attractive and telling advertisements is a valuable man, who will sooner or later secure his reward.

The young man who is fitting himself for a position in the advertising department of a railroad must have a fair education—the more complete the better. He should cultivate the habit of observing closely what others are

doing in the advertising field, and keep as closely in touch with current events as possible. He should cultivate clear, concise, and truthful statement, so that the public will understand when they see one of his advertisements that what he states is true. He must be willing to work early and late, for often the thing to be advertised is not known until late in the afternoon, and it must be in the papers the next morning, and sometimes this means that it must be in every important newspaper office from the Atlantic to the Pacific within six hours from the time he gets the information.

There is another feature of the advertising department that is nearly as important as the preparation of advertising, and that is its distribution. A man may produce advertising that would charm an angel, but if he has no means of getting it to the angel it does not charm. To get advertising into the hands of the people for whom it is prepared is one of the problems of every advertising man, and the space for this article is too small to undertake to elaborate this part of the subject. Each man will have his own idea as to how best to get his advertising matter into the hands of those he wants to have read it.

In our advertising department, young men begin as office boys and junior clerks, and work up gradually into good positions in the course of a few years. This depends upon their ability and adaptability to this particular work. Most of them are graduates from the public schools of New York.

The ticket department is the sub-department charged with the preparation and issue of all tickets. It requires great care and accuracy, and in large railroads this sub-department will consist of from six to a dozen men. The head of this department becomes an expert on forms and

routes of tickets. He should have an extended knowledge of geography and the junction and terminal points of all transportation lines over which tickets are sold. This department receives the tickets from the railroad ticket printers and distributes them to every agent on the line. In this, as in other sub-departments of the passenger department, it is customary to have young men begin as office boys and junior clerks and work up by promotion and advancement to the head of the office.

The making of passenger fares and the division of the through rates so that each company over whose lines the passenger travels may receive its proper proportion of the money paid for the ticket is an intricate operation, and requires especial skill and experience in its accomplishment. The chief rate and division clerk, with his numerous assistants, is therefore an important factor in the passenger department of every great railway.

The running of reduced rate excursions has grown to be an important branch of passenger traffic, and the passenger department of each large railway has men who are devoting their entire time to this growing business, which opens an attractive and profitable field for energetic and forceful men. Arranging for excursions months in advance of the time when they are to run and the care of them when they are run, keeping the record of rates, and the number of people carried, and the preparation and distribution of advertising matter regarding the excursion, are duties that employ several men in each passenger department during the excursion season. The excursion business is largely under the charge of the various general agents of the passenger department, whose duty it is also to arrange for the handling of theatrical, private car, and other special parties. The rec-

ords of this special business form an important feature of the work of the chief clerk of the department.

The baggage department is another subdivision of the passenger department, and requires skilled men who have grown familiar with the business through years of association with it. This sub-department is in charge of a general baggage agent, who has various assistants, and whose duty it is to prepare and issue checks for all the stations along the line, to keep records of all the baggage handled, and to trace lost or stolen baggage. The general baggage agent adjusts all claims for loss or damage to baggage, and he has charge of all parcel stands on the line. Accuracy and intelligence and good common sense are essential to success in this department.

The dining department includes the dining cars, private cars, and the restaurants, and is an important adjunct of the passenger department. This is under the direct supervision of a dining car superintendent, who has immediate charge of the commissary agents, restaurant managers, and dining car crews. He must be a man thoroughly experienced in the culinary art and one who knows what the public taste requires in this direction. He must also be familiar with the markets and exercise a proper ability in the selection of employes of this department who come in direct contact with the public.

The general agents of the passenger department form a very important branch, and handle, in their respective territories, many of the details of the work of the passenger department. They are usually located at the termini of the line or in the centres of population in the territory from which the company expects to draw traffic. Their duties are very general in character. Experienced men are required, capable of handling important ques-

tions without reference to the general office. They are frequently charged with making important arrangements with connecting lines, newspapers, hotels, and societies, and with fostering in every conceivable way the interests of the company. In their territories they have charge of the distribution of advertising matter, and in many instances they also prepare advertising. One of the duties of the general agent is to form the personal acquaintance of the officers and agents of all connecting lines that send traffic over the line by which he is employed.

Each important railway employs a number of passenger agents, whose headquarters are generally in some important city, from which they travel in a prescribed territory, visiting from time to time the local agents of their own or connecting lines, thus keeping in close touch with the requirements of the traffic. They also look after the distribution of advertising matter, and make frequent reports of the conditions of traffic and the outlook for future business. They report, as a rule, to the general agent. They also accompany special parties over the line, looking after their comfort in various ways. They need to be active, energetic, and tactful, and to have a pleasant address.

It requires the time of several young men to handle the redemption of unused tickets and parts of tickets which, for some cause, have not been used. The calculation of just what is equitable for a passenger to receive who has only partly used a ticket requires a knowledge of passenger fares and rules of the various lines over which tickets are sold. Where a man purchases a ticket and does not use it at all, the amount he paid for it is refunded to him on his presenting it or sending it with a statement of the facts. If he has used a part of it, he

is paid back the exact value of the unused portion of the ticket. The amount of money refunded on some of the larger railways amounts to between \$60,000 and \$100,000 a year.

The information and recreation department is one of comparatively recent origin, but is growing rapidly in importance. The head of this special department on the New York Central is a woman. Information about hotels, summer and winter resorts, etc., is collected, placed in scrapbooks at the head office of the information and recreation department, and from that office is sent out to the various branch bureaus all along the line. The New York Central lines have seventy-seven information bureaus located in various parts of the country.

On most railways a kind of civil service plan is adopted, and clerks and other employes are promoted from time to time, according to length of service and ability to perform the duties devolving upon them. When a clerk has had sufficient experience and has obtained enough knowledge of the business to become a district agent, general agent, or assistant general passenger agent, his promotion then depends, of course, upon vacancies on the road on which he is employed or changes that may be made on other lines having knowledge of his services and qualifications.

In the passenger department boys begin as a rule at about \$25 a month, and are expected to acquire shorthand, increase their knowledge of arithmetic, better their penmanship, and study history and geography. This is, of course, on the supposition that they have not had a general education. The boys who study shorthand gradually work into stenographic positions at salaries ranging from \$50 to \$125 a month; other boys become junior

clerks in a short time, and some are graduated from the general office and become ticket agents in the company's offices in the great cities.

Railroad men, perhaps more than almost any other class, need a knowledge of all kinds of business, and ability to judge of the value of things in general, for as they advance in a railroad career they will be expected to decide all manner of complex questions relating to the growth of the traffic and the constantly changing conditions under which it is necessary to conduct it.

While the passenger department offers many fine opportunities for men peculiarly adapted for its service, I think it is the general opinion of railway men that the department offering the best chances is the operating or transportation department, which is usually presided over by the general superintendent or general manager. In this department there are thousands of positions, such as switchmen, yard masters, enginemen and firemen, train conductors and brakemen, telegraph operators and dispatchers, baggagemen, ticket agents, superintendents of telegraph, superintendents of signals, and division superintendents.

Of the traffic departments, the freight department offers many more advantages than the passenger department, for the reason that the freight earnings on most railways are largely in excess of the passenger earnings, and the number of men employed is far greater.

The engineering department is an important one, especially on lines where extensions are being made and new construction is going on. This, of course, requires technical training and experience, and is now rarely open to men who have not had the benefit of such an education as technical schools and universities give.

The mechanical department, or that of motive power and rolling stock, also requires special training and education, and is growing more and more scientific each year.

The legal department offers rare advantages for carefully trained lawyers who desire to practise law as applied to the great transportation lines.

The accounting department employs hundreds of skilled accountants and scores of young men in keeping a record of the business of the company.



THOMAS HASTINGS.

ARCHITECTURE.

The art of architecture is still in its infancy in this country, perhaps more so than any other profession. The unprecedented growth of large cities in a new country has caused a demand for architects which it has been almost impossible to supply. It was after a quiet conservatism such as expressed itself, among other places, in Washington Square and lower Fifth avenue in the metropolis that this rush for building took place, and the eccentricities which were produced by a large number of men who had no right to the name of architect present a sad contrast to the quiet reserve of the old regime. There was no time for an education, and we are only now extricating ourselves from the consequent confusion.

The progress which has been made within the last ten or fifteen years has perhaps been greater and more promising than is generally realized, but there is still a great

call for educated men. Education is becoming more and more easily obtained each year. From the very beginning of things, from the time of the cave dwellers and the mound builders, there has always been an "Art Centre" to which people would go from all over the world in order to obtain an education under the instruction of the best living artists. Today this centre is unquestionably Paris. The instruction there obtained is not only for the fortunate ones who have been able to avail themselves of such opportunities, for at all times these men, upon their return to their own countries, have instilled into the minds of their people much of the spirit which they themselves have imbibed.

It is very promising to know that there are more than ten times as many American students in the Ecole des Beaux Arts today as there were at the time the writer was there sixteen years ago. If we except the French, there are more Americans than men of all other nationalities combined. These young men are doing much good by coming in contact with the draughtsmen in our offices, and many of them are professors or instructors in our different colleges where architecture is taught, and there, too, they are greatly improving the standards of education. It is a great pity, in my opinion, that architecture is taught at all in our colleges until they can see the way clear to teach painting and sculpture at the same time. We teach architecture generally too much as though it were a mere science or a subject for historic research.

Why could not a college in a great city like this connect itself with the working architects, painters, and sculptors, the men who are doing the best work? These men could have studios or ateliers in close connection

with their everyday work, where they could make frequent visits under the auspices of the university. Two or three ateliers in each of the arts would stimulate a wholesome rivalry or competition which would be most beneficial. It might also become an inducement, even if there is but a small remuneration, for a working artist to receive such an appointment from a university because of the distinction of being connected with it—as it is in the case of the *Ecole des Beaux Arts*. These artists could also be consulted as to what studies might be followed by the architectural students in the regular college course, and this might be the beginning of a great school of fine arts under the auspices of an already great university.

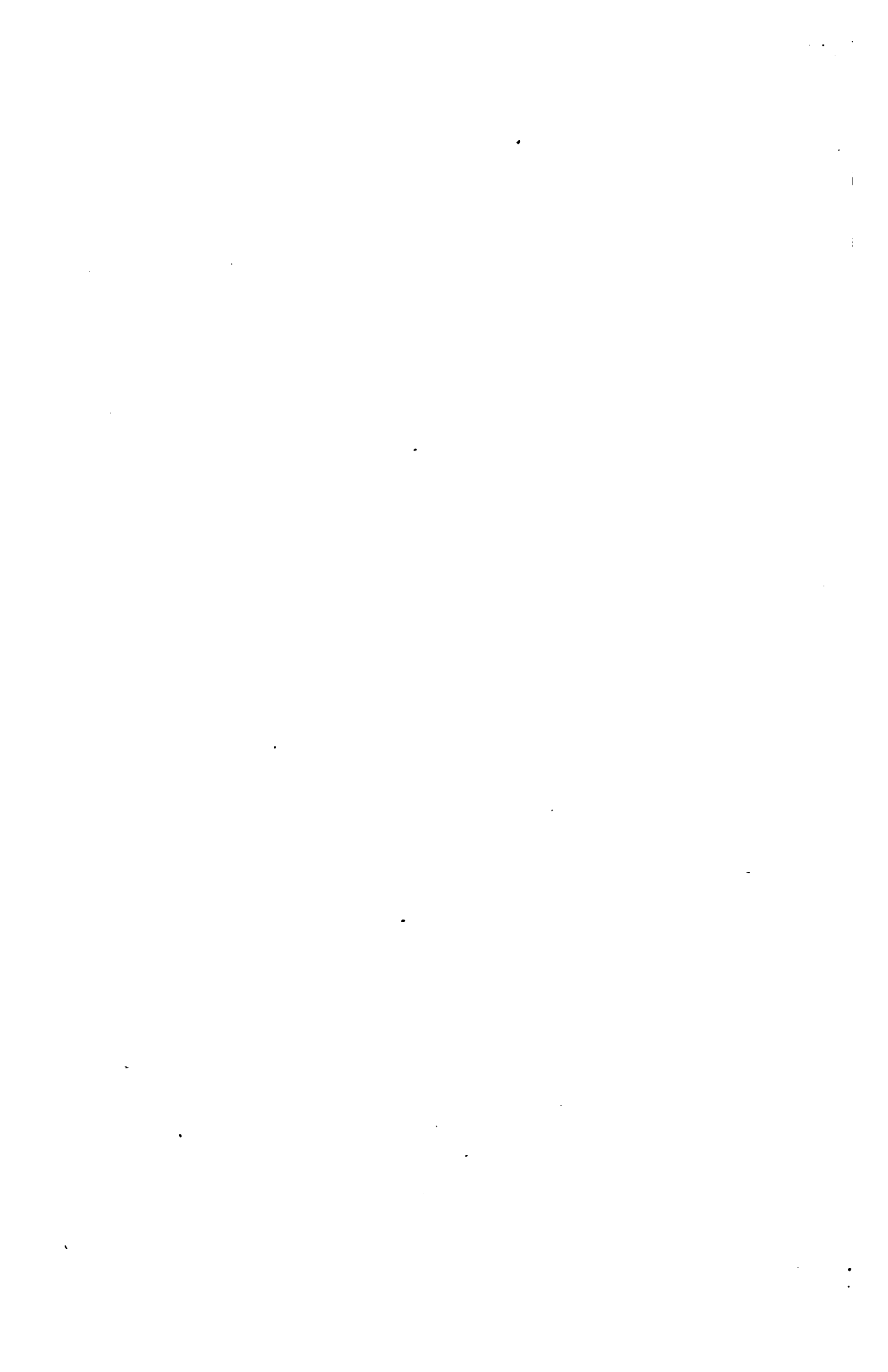
One of the great misfortunes with which we meet in our profession is the fact that so many practicing architects stop work themselves to take care of their offices in a so-called business-like way, and only to direct clever draughtsmen to do their work for them. This is especially true of the men who have the large offices. It is exactly the same with an architect as with a sculptor, painter, or musician—he must work himself and with his men. He must never stop using his T square and triangle, making working drawings, if he would effect progress. So much financing, engineering, plumbing, and other things have crept into the modern architect's life that he must associate himself with some one else to do these things or necessarily do less good art than was done by architects in other times; either this or he will neglect the practical. He must associate himself with a practical man who at the same time has an artistic training, so as fully to solve in an artistic way the conditions of modern life. This association makes room for another class of men—one might say, almost another calling. Such work

is very interesting, improving, and remunerative. The artist often finds it most difficult to secure this kind of partner—a man who knows something about the art and at the same time is capable and willing to do the other thing. Draughtsmen of this kind of “all around” training are also difficult to find, and are well paid.

There is no question but that there is as good a livelihood for an architect as for any other professional man, and there are probably more opportunities for an early success in this than in almost any other profession. There are channels open to him toward success in the very beginning of his professional career, as for example the ever ready competitions into which he may freely enter. If he has the right training and is willing to work, a young architect stands a very good chance of beginning his regular practise in this way, and often at a very early date. Again, his relatives and friends are more apt to take a helpful interest in him than in their young doctor or lawyer friends. They are more willing to trust the designing of their house to a young man in whom they have an overestimated amount of confidence than to have a young doctor perform an operation, or to trust a young lawyer of equal standing with an important litigation in which a good part of their earnings is at stake. In the streets of New York we find many monuments to the folly of a relative or a friend who inadvertently fostered the ambitious student, and the whole community suffers because of such relations. There are a great many young men in the profession who, though not well-known to the general public, have obtained a considerable practise in these ways. While waiting for such opportunities to offer themselves they are generally well cared for in the offices.

How often we hear from the young man who thinks of being an architect the question as to whether he must be "born to it." This same question might be asked of a blacksmith or a tailor, or a man about to enter any profession. It is difficult to know until he has tried it. The principal question is, does he like this kind of work, and is he willing to devote himself to it without thought of what he can get out of it either in the way of money or fame, but simply willing to work for the love of doing it?

There is no one in life with whom I have more sympathy than the boy who is trying to make up his mind what he is going to do. At an age when he is least capable of judging he is called upon to make the most serious decision of his life. Some men marry too young, and, when they do, generally make a mistake, but this is not forced upon them. However, the earlier a man chooses his life work the better it is for him, especially if he is going to be an artist; and, alas! how many regret it when it is too late! The world is full of merchants trying to be architects or artists trying to be merchants—all made miserable, and there are no Western States or divorce courts to help them out. Almost every unsuccessful man thinks he has mistaken his calling, and oftentimes even finds comfort in thinking of what he might have been. The poor boy who is at all thoughtful realizes this, and he envies every man, whatever his calling may be, if he has made a success of it. If he has been given his five talents and has brought back five more, this man has made no mistake.





THOMAS COMMERFORD MARTIN,

PAST PRESIDENT OF THE AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS, AND EDITOR OF "THE ELECTRICAL WORLD AND ENGINEER."

ELECTRICITY.

The great development of electricity, with which the world is familiar, has been carried on almost wholly by men who had no specific training for the work, and who were enlisted from other fields. That the new science and industry offer larger opportunities than ever for successful careers is true, but it seems doubtful whether the invitation remains so open and generous as it once did to the merely adventurous spirit. The question of an electrical vocation in life is rather comprehensive to-day, and electrical engineering is but one aspect of it. Nevertheless, the chances in it are overwhelmingly in favor of the educated man as against the uneducated, whatever branch of the electrical arts he may elect to cultivate.

One often encounters the idea that the revolutionary inventions distinguishing the last half century were the fortuitous hits of untutored genius; but, on the contrary, most of the famous Americans have been college bred, such as Brush, of the arc lamp; Sprague and Short, of the electric railway; Elihu Thomson, of the meters and welders; Bell, of the telephone; Wheeler, of the fan motor; Pupin, of the improved cables; Morse, of the telegraph. If, *per contra*, may be mentioned Edison or Weston or Bradley, inventors of unusual penetration and discernment, it can only be argued that they are deeply studious and profoundly thoughtful men, to whom the issuance of a diploma would be rather superfluous, except as a recognition.

In a word, the young man proposing to himself an electrical career must be educated thoroughly, unless he is satisfied to remain a salesman or a bookkeeper, and even then he will find himself, on the mercantile side, pitted against college graduates of keen wit and excellent training who have ascertained that commercial work suits their idiosyncrasies better than designing and testing in factory and plant. The head of the largest electrical publishing house in the country was once a school teacher; the president of the parent telephone organization was a lawyer; the manager of the biggest telephone exchange in the world was a government clerk who put himself through the law school; and innumerable instances of the kind could be mentioned. Most of the inquiries for salesmen reaching the author's office today lay stress upon the desirability of a college degree on the part of the applicants. The reason for this is that electricity is of all things accurate and precise and requires on the part of its practitioners trained minds, definite

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ideas, a grasp of principles and a fund of authentic information. The man who sells telephones or motors has to be ready with all kinds of data as to construction and operation. The salesman representing a wire house has all the odds in his favor if familiar with the esoteric theories of phase currents, load factors, and line loss, as well as with wind pressure and tensile strength. The preparation of "ad" copy for dynamos or transformers, setting forth technical merits or moot points in a legal controversy, exacts ability that could hardly be so well shown off in a graduation thesis.

Electrical courses at the universities and colleges have multiplied so greatly of late years that a student can put in his four years profitably almost anywhere in the country, although some seats of learning have made a name for their men in this field. At first Annapolis and West Point were drawn upon, and army or navy men are thick among the officers of the massed electrical forces. Cornell was about the first to take up electrical engineering distinctly, under Professor Anthony; but the modest Stevens Institute of Technology has turned out numbers of well-known "electricals," and the Massachusetts Institute of Technology cannot be beaten. Columbia University in New York is supplying admirable graduates to every branch, and Dr. Perrine did good initial work at Stanford University, just as Professor Ayres has done at New Orleans. He is a poor student who cannot get his electrical training near home. In some instances special research is the ambition, and herein the body of men to whom the late Professor Rowland communicated the touch of his genius at Johns Hopkins have been notably eminent.

At the other end of the scale, but in their way just as

useful, come the night classes, and particularly the correspondence schools. The electrical courses of these institutions for young men who cannot go through college are admirable as a general thing. They have been prepared in many instances by experts and authorities, and are even used in some of the colleges. The writer could quote many instances of the decided benefit resulting from a study of their papers at home or amid daily avocations. But, of course, the thing to do if possible is to go through college; and, if time and money allow, to top that off either with some shop practice or with post-graduate work, preferably in Europe—with Nernst in Germany, for example; Mascart in France, or J. J. Thomson in England. This is especially sought after by young men who propose to give instruction, and as every self-respecting college now has its electrical department, the demand for professors is growing all the time, while their pay is also going up.

It is rather difficult to say what type of young man should take up electrical engineering, but the beginner should certainly have a taste that way. The probability is that most of the electrical engineers of today would have found their profession a hundred years ago in mechanical, civil, or mining engineering as analogous careers; and many would have been military engineers. In fact, if a man has no bent toward mechanics, it is pretty safe to let electricity also alone, since the two are so closely allied; but in its higher physical aspects, or because it is a more subtle agency than steam or air for getting things done, electricity appeals to certain enthusiastic young minds as does nothing else. It is said of electricians that with them the art they practise is often a religion rather than an ordinary profession; and if that

spirit possesses a man in regard to the work to which he proposes to devote his life he has assuredly made no mistake. Unfortunately, many people casting around vaguely for openings for their sons, who never before showed an aptitude for engineering pursuits or who have failed in some other direction, think that this mysterious force in some marvelous way can give them the very chance they need. Of all the known fields of work the electrical is that in which the languid or incompetent is most quickly detected and thrown out. Electro-magnetic influences repel not less strongly than they attract.

One thing is absolutely true. The earnest youth who has honestly educated himself for it does not have to wait long to secure either position or emolument. It is probably the fact that young engineers in any branch reach more quickly than beginners in other professions the point of "making their expenses." Lawyers and doctors are generally supposed to have a pretty hard time in that respect; and the inference can only be that their walks in life are overcrowded, while the others are not.

To come specifically to electrical engineering, Professor Shepardson, of the University of Minnesota, may be quoted. He was speaking recently before the Northwestern Electrical Association at Milwaukee as to the requests he got for men to go into central station work, and said:

"I am not here making a petition that you go after technical men, because the demand for college graduates exceeds the supply very greatly. I think in the last twelve months I have had fully six times as many applications for graduates as our last year's graduate course numbered."

This could be matched by the experience of other pro-

fessors and the interesting fact that the New York Telephone Company in recruiting for its staff has literally established examination centers at the great cities so as to snap up available men from the colleges, and has even taken men only half way through Columbia, so as not to be short handed. Professor Shepardson in like manner tells of sending out one of his students to make a needed test and to report on some central station. It is needless to say that these newcomers do not at once draw salaries that will support a home and family, but it is their own fault if within a year or so they cannot make \$1,500 to \$2,500 a year.

Possibly part of this active demand may be due to the great prosperity of the country, so that a slackening in material development would reduce the market for educated men to the glutted conditions of Germany. This may be granted, but only as applicable universally, and less directly than might be imagined. It must be obvious to the most casual observer that a great number of things are being done electrically today that were never done so before, and that the area of conquest extends steadily, rapidly, irresistibly. Thus, aside from normal or even abnormal growth of opportunity, there is the broadening field due to the annexation of familiar departments of effort, in which the old methods or motive power or appliances are superseded by a new agent.

A curious exemplification of this undoubted condition of affairs was noted recently in the fact that while Peter Cooper worked at inventions in the field of steam locomotion, and Abram S. Hewitt was associated with the perfection of steel making, the grandson, Peter Cooper Hewitt, is devoting his en-

ergies wholly to electricity, and is giving the world cheaper light and better apparatus. This is strictly evolutionary; and if the old philanthropist were starting out now his mind would be concentrated on the utilization of electricity to supplant steam on trunk railroads, instead of aiming to replace stage coaches and horses. All this is encouraging, moreover, to the future electrical engineer. Every man wants to know whether his art is lasting, or whether it is a fleeting fancy like the bicycle, a flying craze like ping pong. It may not be mathematically demonstrable, but unless all signs fail it is safe to assert that electricity is destined to go forward rather than to go back; that its "greater lies before." If this be so, then the youth who has studied electrical engineering may draw hope and confidence from the knowledge that "things are coming his way."

What branch of electricity shall a young man take up? This is a hard question to answer, for so much depends upon the man himself. There are some designers of dynamos and transformers who would fail utterly at submarine cable laying. There are central station managers handling large numbers of men with brilliant success who could no more write a technical article than build a trolley line to the moon. There are telephone engineers who consider their problems of switching a million talks a day vastly more intricate than those of sending ten thousand horsepower over two hundred miles of transmission pole circuit. To a great extent, therefore, the novice in electrical engineering must determine his sphere of action for himself, subject to certain limitations. Telegraphy, for instance, is not particularly alluring for both the land and the sea business have largely become a question of direction and management.

Yet even here changes impend, for it seems impossible that automatic telegraphy should not assist the manual key and sounder, or that the etheric wireless should not compete with the fathomed cable on the bottom of the sea. Under the elder telegraphic conditions the pay and place of the electrical engineer have been dwindling away. Under the new all kinds of novel opportunity haunt the horizon, and the engineer or inventor in this field may derive some very rich rewards.

Telephony, again, a kindred art, is in a most progressive state, crowding telegraphy to the wall, yet stimulating it, too, somewhat as Canada responds to our own tidal movements of prosperity and adversity. It is hard to see where the limit is coming as regards the demand for trained men in the telephonic field, but here again there must be a "call," a special aptitude, an ability to deal decisively with the various knotty questions which arise as to the location of exchanges, size of switchboards, methods of operation, schemes for "trunking" traffic, care of overhead and underground lines, etc. Every telephone exchange system is an engineering and economic problem by itself, with endless variable factors in each case, and the younger engineer can wish no better work than seeking to perfect the art of transmitting speech.

In heavy electrical engineering there are practically four branches—lighting, railways, power transmission, and power distribution. All of them offer splendid careers to the right men, and some leaders are quite at home in all of them. L. B. Stillwell, electrical engineer of the Manhattan Elevated Railway, first learned to deal with colossal dynamos and huge currents at Niagara, and when he came to New York for the Manhattan sys-

tem, others from the same school were needed as well. If it is recalled that there are 1,200 trolley systems and 4,000 central lighting stations in the United States, it will be seen that plenty of able men are needed badly all the time to keep pace with the advance of these parallel industries, in which alone the amount of capital represented has already reached \$3,500,000,000. Nobody supposes for a moment that all the lighting circuits have been strung or all the trolley tracks laid. Then, there is the power industry—the long distance transmission of current from waterfall, gas belt, oil well, or coal mine to centers of population and manufacture. Out in California, San Francisco is now getting electric power from the Sierras, 216 miles away. Such work can only multiply. Another field of tremendous expansion is the utilization of the electric motor in factories. The present writer, as United States census expert, showed recently that in spite of all the work done, electric power in American mills and power consuming establishments was but 4 per cent. of the whole. Who would venture to set the mark of limitation as to the rest during the present decade?

Incidental reference was made just now to the salary an electrical engineer may hope to earn. The figures were named at \$1,500 to \$2,500, but these may be regarded as at the lower end of the ladder. A great many get that and a great many get far higher pay. One chief electrical engineer of a large manufacturing corporation is understood to be receiving \$12,000 a year, but there are other electrical engineers who have gone more directly into the management of such concerns that do better. In fact, all the electrical manufacturing and public service companies have engineers scattered around

in their control and direction who have grown gradually into their present positions, and earn from \$5,000 up to three or four times that amount. The selling department, too, has its financial prizes. One young manager of sales, about thirty, a member of a well-known family in New York, is said to have cleared up over \$15,000 last year. This is exceptional, but the fact remains that it can be done. The money prizes are naturally more those of business life than of the professional career, but the engineer has often a good chance to be inventor as well, and then it is his own fault if he does not score. In the modern scale of wealth, such men as Edison, Sprague, Bell, Thomson, Weston, and Brush may not rise to a high notch, but by most people they are regarded as having attained handsome affluence, and some of them are millionaires in the strict sense.

Pupin and Marconi and Tesla are at hand to attest that all the fortune yielding electrical inventions have not yet been hit upon; but even if mere wealth be put aside, the young man who decides to go into electrical engineering because he loves hard work and lots of it will be compensated in many ways. He is always sure of a competence, modest though it be, and he has the satisfaction of being associated with a profession than which there are none contributing more largely to the happiness, progress, and welfare of mankind.



JOHN DE WITT WARNER.

LAW.

Being free to choose a profession, three questions arise in a young man's mind :

First—Does a given calling offer congenial occupation and the rewards of success most desired? Second—Has the chooser such natural fitness for it that he can confidently undertake it? And when these are answered, there comes a third—"How can I best prepare for it?"


As to the first, not merely in the judgment of its votaries, but, I believe, in common opinion, law stands well to the front of the professions in which men pleasantly and fortunately serve their kind; and also in which, throughout life, most of those who enter them remain contented with their choice. And this seems justified—whether in the average competence that is the lawyer's lot; the inalienable character of his professional equipment, that leaves him comparatively independent and immune from financial reverses; the confidence of



the community, witnessed by the extent to which in public matters the prominence once accorded to the clergy is now enjoyed by the bar ; or the degree to which, within the professions, its ethics are appreciated and its standards maintained.

The choice of the legal profession involves renunciation as well as reward. A career of usefulness in his work and of exceptional influence far beyond it ; the comfort and content that come from the mean between poverty and riches ; the respect of his fellow citizens and leadership in public affairs ; constant association with the "all-round" men of his time, and social position for his family—these are his. But as to wealth, literary fame, elegant leisure—not merely would it be unreasonable to ask that these also be added, but one capable of being a lawyer, and who has succeeded in his profession, will always have something better to do than to seek wealth, will be generally too direct and practical to put much art into what he says, and will enjoy work too well ever to accept leisure, except as brief rest, in preparation for new activities.

As to essential qualifications: For no other profession is a fair average of mental, moral, social, and physical qualities more needed, or a better basis. But, even with these, far more than in most other professions, success and usefulness depend on good health and good humor. The common law, as practically given effect, either in or out of court, is not an exact science ; but an attempt to apply common sense to the indescribable complexity of human affairs—frequently in appreciation of how little in a given case law can do at best, how imperfect are the means by which it must work, and how often the best practical solution is far from that most ideal in theory.



For the young man whose temper and attainments are yet to be tested, good health and good humor are, therefore, the best promise of that every day good judgment upon which his clients must depend.

In the law far more than in any other calling one deals with the greatest possible variety of human relations and has one's mettle constantly tried from every possible point. The clergyman answers only to his conscience, and speaks in a name to be revered. His clients sit at his feet; his only opponent, the devil, is no rival for professional honors, and as to most questions with which he has to deal, his brethren are interested to support him. The physician treats professionally only those who cannot quarrel with his orders and meets those competent to judge him mainly in consultation to aid his success or defend his repute. But with every retainer a lawyer takes he challenges the sharpest criticism, invites the craftiest attack of whomever of his brethren the opposed party shall select, and in the matters where his repute is most at stake is confronted by brethren as able as himself, or more so, pledged in honor to do their best to make him fail. A physician's mistakes are buried; a clergyman's failures are not exposed as such until the last Great Day. But at every term of court half the lawyers engaged are defeated in each battle, and the last judgment of the Court of Appeals is daily pronounced against an equal proportion. It is just because the lawyer must constantly keep in training at all points, and daily measure swords with equals or superiors, that the law has become the respected and honored profession it is. And therefore, again, important as in each case may be special preparation, Nature's gift of good health and good

humor—and the good judgment that consorts with these—are the best general qualifications one can have.

As to school and college preparation I am confident that, as between good general culture and special study of law at a school, the former is the more essential. But, if possible, one should have both. While the timber for many a good lawyer has been spoiled by kiln-drying it until its "heart" was taken out of it, yet so important for real usefulness are maturity and breadth of view that extra years in study are generally well spent.

As to course and method of study: Within the lines likely to be commended either by a good school or a good office, one is not likely to go astray. I believe, however, that it would be well if every law school enforced thorough drill in drafting legal forms and in memorizing those most frequently used. It is doubtless true that much of the copying by which these were once taught law clerks was an unprofitable use of time that might have been better spent; and that if a man entering an office at from twenty-three to twenty-five years of age should devote himself to this, he might soon acquire a proficiency that experience would ripen. But while such knowledge can be drilled into one by schoolboy methods and enforced in a law school curriculum, the lack of it is the weakness, as the contempt for it is the failing, of "law school lawyers," as contrasted with office bred lawyers; to whom—to the great relief of themselves, long suffering judges, and their professional brethren—"practise" and forms are familiar.

It is probably better to enter the profession through study, for a couple of years at least, not broken in upon by office work, in one of our more thorough law schools—though, provided one has a good general education,

I do not believe this as important as it has sometimes been thought. Comparison is not easy, since it is those who already have a good general education who are most likely to take law school courses. Among our best equipped lawyers, however, are many who, combining good home breeding with good general culture, have lacked either time or money to take a law school course; and some of our most hopeless failures are those whose prolonged study has left them in such ruts of habit and disposition that they are incapable of "getting down to business" in the way one must do in order to succeed.

The best kind of office to enter is the one that will put upon the newcomer the most and the greatest variety of work, and that, as fast as he has shown capacity in any line, will leave him most responsibility. If enough work of a fairly varied nature is allotted to the young lawyer, he need not worry as to responsibility. It will come as fast as he can bear it, and as much as he can carry. An office in a city of moderate size—especially the center of a judicial district—is generally better than one in a larger city, where routine may keep down even a fairly strong man. But it all depends on the office.

As to that, I have but two suggestions: Don't stay in an office the tone of which is low or its practises doubtful. From such have arisen great and honorable lawyers, just as from outcasts and criminals have sprung great and noble men. But, ordinarily, one can no more escape the tone of the office where he has spent his first few years in professional work than he can slough off the breeding his parents gave him. And, if possible, arrange for financial independence during the first year or two of office work; so that you can select the office in which you begin with more exclusive regard to

its tone and opportunities. The financial sacrifice involved generally proves petty or none; but there is all the difference in the world between the point of view of one who, absolutely ignoring rate or fact of compensation, enters the best office he can get into on any terms, and that of him who stops to balance professional advantages against questions of salary.

As to financial expectations, I can add little to what I have already said. For the very reason that the law is an attractive profession to those who do not much value money, it is not so to one who does. Unless one is after something better than money he had better not try to be a lawyer. In short, an ideal lawyer is well—and about equally—insured against either poverty or riches. That ought to content any man; and it does satisfy most lawyers who stop to think about it at all.

I have left for the last the leading requirements of practise, moral courage—to refuse retainers one ought not to take, and unreservedly to honor those one accepts. As to the former, I do not specially refer to retainers to defend criminals whom counsel considers guilty or to uphold the unjust side in a legal controversy, but rather to those which involve the prostitution of legal talent to serve the cause of greed and wrong. It is best for the public interest that in trials at law the cause, such as it is, of the party in the wrong shall be as ably pressed as that of him who is in the right. But neither public interest nor professional honor permits a lawyer to become a hireling dependent of greed in devising plans to rob the public or thwart the law. The financial inducement of such service is the besetting temptation of the lawyer of today, just as in the old times—because the clergyman was then most learned and respected—the rent

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of God's livery to the devil's cause was the best paid service in which men sold their souls.

As to retainers which he accepts, a lawyer can let neither public opinion, deference to the bench nor any personal consequences deter him for a moment from making the best fight possible, by every honorable means, for the cause he has undertaken. Moreover, in judging as to what is his duty, he must unhesitatingly give his client the benefit of every doubt. If he cannot honorably proceed, he can throw up his retainer at the time and in the way that will least prejudice the cause he leaves. But, so long as he holds it, his allegiance to that cause is paramount. This is not entirely a counsel of unselfishness; it is but living up to the ideal that the best of professions has set, with the approval of the best of mankind. Perhaps by no other quality have the three great professions so held universal respect as by that which, with its full quota of frail humanity in each, has led all men so implicitly to rely on the secrecy of the confessional, the discretion of the physician, and the loyalty of the bar to its clients.

As to professional privilege, in the sense that it is frequently assumed and criticized, especially by laymen, it has no existence whatever. It is a lawyer's duty to urge every fact and to press every principle of law that tells for his client; and—within the facts and the law, and every helpful inference that can be drawn therefrom—to put that client's case in the best possible light. But there is no "privilege" under which counsel can wilfully deceive a jury as to fact, or a court as to law; and there is no gulf deeper or broader than that which divides counsel who, in the zeal of contest, unintentionally over-

steps the line of truth, from the shyster who crosses it in order to hit foul.

Finally, for usefulness to one's city, state, and nation—the public service which is involved in the very claim of law to be a profession—it is again moral courage that is most of all needed. Not merely are a lawyer's opportunities for official as well as unofficial influence very great, but he is bound to meet them. Therefore, it is upon lawyers, more perhaps than upon any other class, that falls the responsibility of resisting alike legislation that builds up privilege and remedies therefor that aggravate rather than eliminate; of rousing public opinion when principle is at stake, and of resisting it when misled by error or passion. And in the broader application of this duty there are likely never to be uttered words more fitting, or with sanction that should command more of respect from the bar, than those of Sir William Blackstone, the first law school lecturer in the English tongue, on taking leave of his first class, one hundred and forty years ago:

“The protection of the liberty of your country is a duty that you owe to yourselves who enjoy it, to your ancestors who transmitted it down, and to your posterity who will claim it at your hands, as the best birthright and the noblest heritage of mankind.”



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MECHANICAL ENGINEERING.

The profession of mechanical engineering assumes for its special function the construction of all the mechanisms and machinery which are required in diverting the energies of nature to the purposes of the industrial system. It avails itself of the latent energies of our coal beds, and, by making them active through heat of combustion, transforming by means of the steam engine, the gas engine, and various related heat motors, applying them to the impulsion of machinery, it sets in motion and maintains in operation all the mechanisms of all the industries. Its great turbines absorb the energy of the waterfall and distribute, as at Niagara, thousands and hundreds of thousands of horsepower over hundreds of miles of territory and make use of the rainfall of a continent in supplying power to a nation. It even utilizes

the energy of the direct rays of the sun in rainless countries and applies it to industrial purposes through its "solar engines."

The practitioner designs and builds the locomotive and its train and its roadbed, and transports the flour of the Minneapolis mills to the homes of the operatives in the cotton mills of Lowell. He gathers together ore and fuel and flux and makes possible the production of twenty millions of tons of iron and steel to supply the needs of our eighty millions of people. He builds the transatlantic fleet, and his giant shuttles weave across the ocean ties stronger than steel, binding the nations of the earth into one great community. His machinery lays down the wire along which messages of peace and good will and of commerce and of diplomacy are transmitted between nations separated by the broadest oceans. He gives to the agriculturist his mower and reaper and thrashing machine, to the dweller in the metropolis his power operating all his various railways, to the most remote reader his daily newspaper, the most powerful engine of our time.

His characteristic requirements are thus, perhaps, more specific and essential than those of the members of any other profession. He must have a genius for mechanics, for contrivance, for invention, and for design. He must, to-day, have a talent for scientific work, a natural proclivity toward mathematics, and ability to employ all the sciences as his tools. For highest success he must have learning; but it must not be simply the learning of the scholar. His knowledge must be as exact, as broad, and as deep as the scholar's; and, further, it must be in a form which permits its employment in the doing of things. His sciences are applied sciences; his literatures

are technical; his facts are those of daily experience in his art. If he can add to these professional accomplishments the culture of the university, it will be greatly to his advantage, both professionally and socially, and will make all his life better worth living.

As times have changed, their demands have continually increased, and to-day a mechanical engineer finds all learning and culture, as well as all professional knowledge and ripe wisdom, desirable. He is found, however, in large variety, of many species. Watt was a learned man; Corliss would not have been so considered. The inventor of the telephone made no claim to admission to the ranks of the profession. Morse was a scientific man and a mechanic, but hardly what would be to-day rated as an engineer. But the man who tells us where to construct an isthmian canal, he who constructs our railways, the designer of a battle-ship, the man who plans a metropolitan power station and its distribution of energy—these must necessarily be professionally accomplished. In England all mechanics engaged in the construction of machinery are called engineers. We call them machinists. With us the man who takes charge of a steam engine of whatever kind is called an engineer, as is the man who builds railroads, or canals, and he who lights a city, or establishes a hundred thousand horsepower plant in the heart of New York or on the bank of Niagara. The professional mechanical engineer, however, is he who combines the talents of these men with the technical learning of the schools of engineering, their practical efficiency with that of the scientific designer of a machine or of a system to meet defined requirements.

The professional schools of reputation have always held a high standard of scholarship. The pioneers—the

Rensselaer Polytechnic and the Military and Naval academies—have for generations done admirable work, and with constantly rising standards. To-day the public and preparatory schools are teaching mathematics and the sciences, as well as the older literary courses, so efficiently that it has come to be possible to make the professional course vastly stronger than formerly, and no class of professional schools now excels the leading institutions of this class in the extent or the excellence of their work. In fact, the proportion of candidates rejected and of students later turned back into the world as unsuited to their profession has probably always been exceptional, and the rigidity of the screening process continually increases. Thus the "engine-er" becomes the "ingénieur."

These schools, however, range in extent of professional work over a very broad area. Real professional work can hardly be begun until after a second course in applied mechanics has been completed. Thus some schools give this course in the second of their (usually) four years, and make it a severe one; others, and a larger number, place it in the third year, and some even give but a weak and inadequate course in the senior year, filling up the lower years with non-professional work. The leading schools have come to be professional schools pure and simple, giving four full years to scientific and professional studies, sometimes demanding that all non-professional work shall be obtained in school or in college before admission. The schools of lesser rank give a training in which professional and non-professional work is offered in varying proportions. Each is commonly fitted to its environment, and all are doing good work. The student who can secure a good, liberal education and then complete his professional apprenticeship in a purely profes-

sional school in which the applied sciences and practical training are given in such proportion as most effectively fits the alumnus for promptly making himself in the maximum degree useful, is most fortunate; he who must content himself with a lesser degree of general culture and a mixed technical course may also hope for his opportunities. The main precaution for each, however, is the same—to make sure that such instruction as is offered in his chosen school is given by an expert, whether it be in applied mechanics or the use of hammer and chisel, in descriptive geometry or in technical literature, in machine design or machine construction. The amateur teacher has no place in any professional school, whatever may be the fact elsewhere. The pupil should select an institution, if he has a choice, where every officer, from top to bottom, and every teacher is an acknowledged expert in his individual work. The value of any professional course may be best weighed thus. Nor should any one seek to enter the professional school unless himself fitted by nature for the work.

That school is best which best prepares the aspirant for immediate usefulness while teaching him those higher branches of technical learning which find their application in the higher work and with the great leaders of the profession. The young aspirant will soon see that, while learning is desirable and, later, essential, capability of immediately making himself practically useful is essential to a fair start. His work in shops and laboratories, quite as much as that in the classrooms, finds constant use, and the skill thus acquired is more likely to be of immediate value than the perhaps higher learning of the more advanced scientific departments. The best preparation for a life of usefulness from its professional beginnings is

such a combination of the science and the art, of the theoretical and the practical, as is now generally illustrated by the curriculum of the successful school of engineering.

Where the school is allied to the college or the university, some advantages will be had which cannot be ignored. The broadening culture of contact with all sorts and conditions of scholars and men; the opportunities for securing extra-professional instruction, when time can be given to it, in other technical and scientific departments, or in law, in economics, in languages and literature, presented by learned and famous specialists; the possibility of securing often a special line of work exactly adapted to the anticipated future needs of the man, by combining work in departments not grouped in any one professional school; the larger life and stronger stimulus to achievement—these are important considerations to every man. On the other hand, the independent school is free from the impediments of non-professional influences, can fit its work precisely to its purposes in the way considered best by the expert and professional, is less likely to be controlled and perhaps distorted from its professional form by the non-professional faculty, and it usually has an atmosphere of more intense, if narrower, interest and ambition. It usually provides, also, non-professional instruction, such as the professional school of the university commonly expects its pupils to secure before entrance and to supplement outside the professional course. It is claimed by the former that it provides a better education on the whole, than the latter; it is claimed by the latter, often, at least, that its students enter better educated than, in the earlier days of its mixed course, they left the school.

A fortunate aspect of this difference of opinion and of

practise is that each intending matriculant may read the announcements and registers of all these schools and choose for himself. He may be assured, however, that his success ultimately depends upon his securing the best possible "blend" of science and art, of theory and practise. He will succeed better with this blend than with the most complete and perfect training in either element alone; but the practical man, without more learning than the average well-schooled citizen ordinarily obtains, has a much better chance of success in life than the most learned men of the schools without practical ability or experience. The product of the best contemporary schools in this branch is a vastly better man, professionally, than either; and it is he who will in the coming days guide the capitalists of the country and control all great manufacturing enterprises. gaining, meantime, his full reward.

The cost of the professional training of the aspirant in the best professional schools ranges from unimportant charges, in some of the state universities, to \$150 and \$200 a year for tuition, from perhaps \$10 to \$25 or more for materials and equal sums for books; and the cost of living is such as the student feels he can afford. Some live on \$1 a week, doing their own house work; others club together and expend from \$2 to \$4; still others board in first rate or fourth rate boarding houses, in fraternity chapter houses, or at hotels. These costs are usually reckoned as aggregating between \$400 and \$1,000 for different individuals differently situated; the lower being as little as health should permit, and the higher representing the point at which, usually, needless expense is incurred. On the other hand, a man sometimes pays his own way while in college, by work in spare hours, and

cases have been known in which he has "laid up money" and left college richer than when he entered.

A list of one thousand young mechanical engineers is before me, tabulated. The average period since graduation is about seven years. Of these, so far as reported, one-third are holding positions of independent responsibility; one-eighth are managers and superintendents of works; ten per cent. are teaching in the professional schools, and twice as many are wanted. Ten per cent. are designing engineers, planning the machinery of the workshops, the manufacturing establishments, the railroads, and the fleets of the country. Several are editors; one-fourth are manufacturers; many are presidents and vice-presidents of corporations; others are treasurers, and the rest are distributed throughout the whole system of industries of the country. One-half these men are not above an average of twenty-five or twenty-eight years old, and 95 per cent. are not above thirty-five or thirty-seven. Practically all retain their connection with their profession. They commonly realize and fully appreciate their advantages educationally. One writes, for example: "The great value of the training given me at —, and especially by — College, is brought home to me forcibly many times over every day, and I prize that training more than all the wealth of the land."

The prizes to be won, like those in all other professions, are large; there is always room at the top. As always, earnings at first are usually small in cash, large in valuable experience. Opportunities come in increasing number if the man is the right man for the higher place. More men are needed than can be found to take the higher positions of responsibility and of commensurate compensation. The wise young professional man seeks op-

portunity for profitable experience without much regard to compensation. I have known a man to refuse \$1,500 per annum, and to accept 50 cents a day, where he saw an opportunity to secure practical experience and training such as, in his estimation, were what he most needed. His spirit was that of Agassiz, who, when asked why he refused an important and lucrative business position, is said to have replied: "I cannot afford to give my time to money making." Both had their rewards, each in his own way, in that form of professional success which was the highest ambition of each. Many young college men are to-day working for the great railroad companies, for manufacturing companies, and for industrial enterprises of all kinds, accepting insignificant pecuniary rewards for the time, in order that, by securing that special experience and expert knowledge needed to supplement their special education, they may prepare themselves for positions of honor, of responsibility, and of financial value. Here "the last shall be first."

It is of little consequence what line of work the young man enters, provided it be that for which he is individually well fitted by nature and training. In all forms of mechanical engineering, in shipbuilding and in the railway systems, in manufactures or public works, great opportunities are all the time, and more and more frequently, offering. It matters little what line the man selects, provided he is naturally fitted to do the work by talent and by inclination and that he acquires promptly the needed professional training and a later experience. If able and reliable and loyal to his employers, he is far more likely to be promoted faster than is desirable than to remain unrecognized in any important organization. His early years should be devoted to securing professional

knowledge and practical experience, efficiency in his business and ability to deal with other men. Opportunity, responsibility, and financial returns will come later, once he reaches the age at which older men holding such positions begin to drop out. If suited to the work, he will find his place.

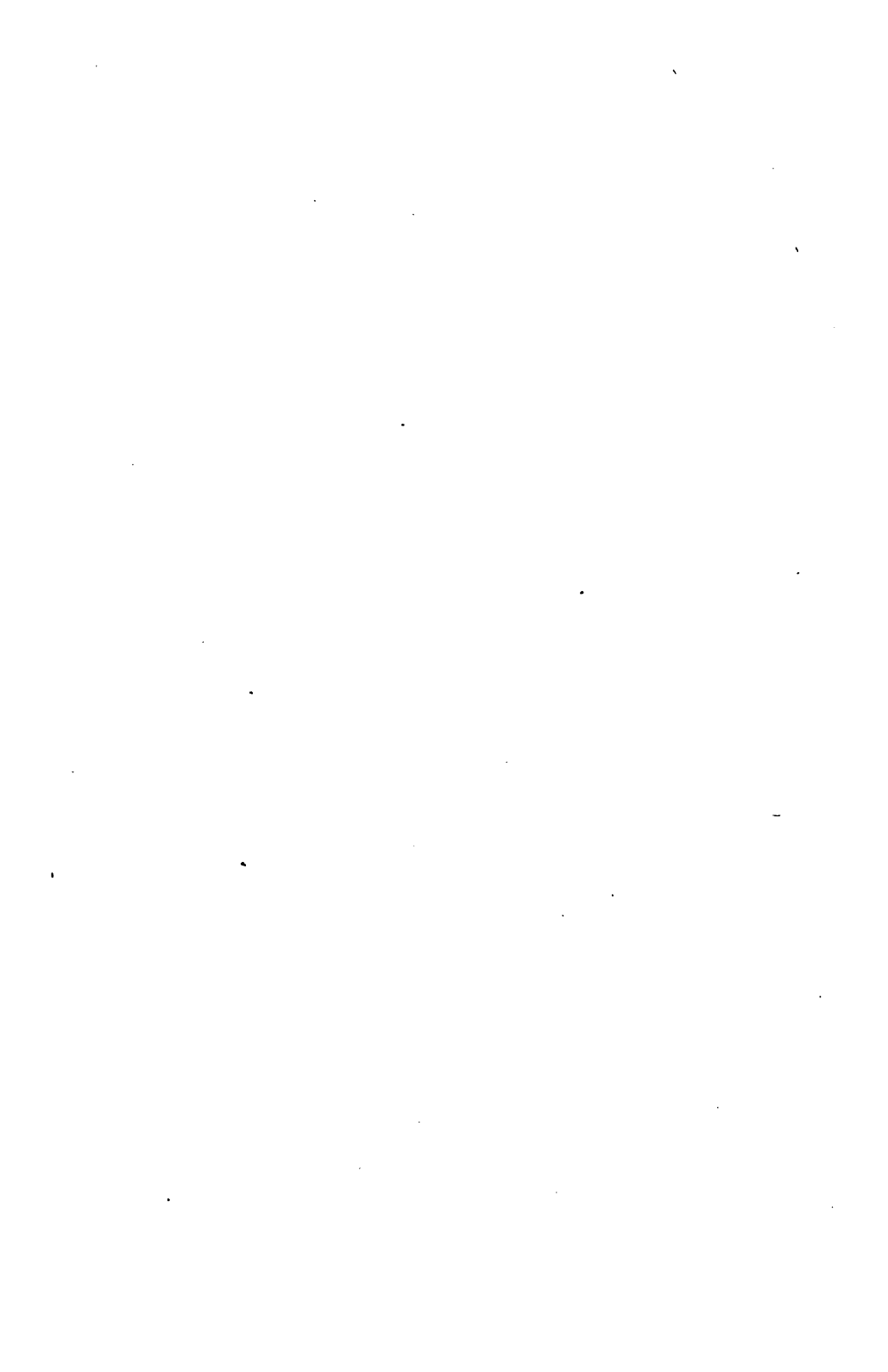
Meantime, the work of the world is falling into the hands of these able, expert, experienced, and efficient men of the new generation in rapidly increasing proportion, and the professionally trained "expert" now finds himself wanted wherever learning, ability, and experience are essential to the success of a great enterprise.

Of the calls for such men from the "captains of industry," 45 per cent. are for positions worth \$750 to \$1,000; 15 per cent. at \$1,200; 20 per cent. at \$1,500; 15 per cent. at \$2,000; 5 per cent. at \$2,500, and in many cases from two to ten men are sought. The needs are greatest in the highest positions, where men capable of carrying large responsibility and having exceptional executive capacity find their place. One man who did not take his diploma for some years after a business call had taken him away from his earlier studies, is now a vice-president of one of the largest corporations in the United States; another, only about ten years out of college, has become the president of several important corporations, aggregating several millions in capital, and as a whole extraordinarily profitable, mainly through his ability, good judgment, and business efficiency.

One of the best gauges of the value of these men when well suited to their profession is found in the fact that, when these alumni of the "ingénieur's" college are asked if they desire to change their present positions, they almost invariably reply that they are well satisfied.

Asked at what salary a change would be considered, 10 per cent. of those giving definite figures proposed \$1,000; 30 per cent., \$1,500; 30 per cent., \$2,000; 10 per cent., \$2,500, and 5 per cent. in each grade, \$4,000, \$5,000, and \$6,000. The ablest men in highest positions usually declined to consider a change of employers or of employment.

The mechanical engineer, just from college, if he has profited by his opportunities, usually gets on slowly at first, but very rapidly later. The man who refused \$1,500 a year to accept 50 cents a day, where his opportunities were greater for learning his business, now receives—six years out of college—\$3,500; the usual figures are \$60 to \$75 a month when employed rather than taught in the great manufacturing organizations. Salaries a little later range from \$1,000 to \$3,000, and sometimes \$5,000 and \$6,000. The average asked by men willing to change their fields of work, as reported a year or two ago, was about \$2,000 for men seven years out of college. One young man dropped out of college to secure an opportunity to become familiar with an important industry, the chance coming unexpectedly. He returned to take his degree, three or four years later, with a contract for four years, at \$6,500 a year, in his pocket.





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MINING ENGINEERING.

The fact that an American mining engineer has been able within the last few weeks to close a contract with a financial house by the terms of which he receives a salary of \$100,000 per annum for a term of ten years, by itself suggests forcibly enough that mining engineering can under certain circumstances become a highly remunerative profession. In a period when we deal in round figures, when technical skill commands a royal fee and the success of the undertakings directed by engineers becomes translated into sums of money so large as not long ago to have been almost without meaning to the average man, it is obvious that the money element assumes a fascination to the youth of the country which is apt to be destructive of the ideals of a profession older than most of the occupations which command the honorable regard of modern men.

As a career for young men that of the mining engineer has much to commend it. A judge recently elevated to the bench may view with sympathetic interest the doings of the attorneys from whose ranks he has lately resigned, so it is permitted to the writer to speak understandingly concerning a profession which he has himself formerly followed with satisfaction.

We start with the assumption that the young men of America have the prerogative of choice in the career to which they will devote themselves. Other times, other customs. In the old country, England, it has long been the custom for the sons to follow in the footsteps of their fathers; this was especially the rule with the eldest son, even when the younger were permitted a wider range. In this way certain family names have been handed down generation after generation in connection with a particular profession, and the eldest son no more thought of declining to become a doctor, lawyer, or engineer, like his father, than those of noble birth declined the privileges of primogeniture. But in the United States the needs of a new country and the opening up of resources hitherto undeveloped made a claim for the services of the best men, regardless of family tradition; it became an unwritten understanding that in the broad arena of a young nation's expanding activities there was work for every man with powers sufficiently flexible to adapt himself to a new environment. The opportunity created the man, the early training for a particular calling was thrown to the winds in the eager willingness of the American to do at once the work which came to his hand. The rail splitter became a statesman of heroic mould; the soldier became a tanner and later on resumed his soldiering to command a conquering host; another tanner, a contemporary of the

general, developed into a Napoleon of finance ; the village attorney became a world renowned scientist ; the doctor was metamorphosed into a celebrated jurist, and so on through the entire series of a professional confusion out of which great and useful men emerged, not singly, but in battalions.

This has had its effects on a succeeding generation. Our young men are now encouraged to find out their own bent, and the parents are only *ex officio* members of a committee in which their sons consider the advantages of the several callings open to them. Therefore, possibly, it becomes useful to discuss the matter, appealing both to the seasoned sense of parentage and to the enthusiasm of more impetuous youth.

It has been suggested above, by one striking incident, that the work of a mining engineer may be rendered enormously profitable. On the other hand, a glance at the rank and file of the profession will suggest that the rewards are not evenly distributed, and that wide extremes of success and failure are readily discernible. It is so, of course, in varying degrees, with all the professions ; an occupation which to be successful requires certain qualities and aptitudes must necessarily develop wide differences in the results achieved by men of unequal capacity.

Competition is the acid which etches the professional character. By looking at the unsuccessful we can learn why they were so hopelessly handicapped in the competition into which they entered, and thus, by elimination, we may determine what type of man is most likely to achieve success. Such a chart of the shoals of life may aid the young mariner who essays to sail forth today,

and will assist those, his mentors, on whose advice he sets out upon the voyage of life.

The first requisite is a sound physique and good health. Good health is helpful in every vocation, although it is a fact that great things have been done by those who, crippled by ill health, were still able to follow a sedentary occupation; thus Darwin, Huxley and Spencer each completed a monumental lifework, despite protracted disabilities such as would have made an ordinary man a plaintive invalid. A lawyer or a doctor need not be robust to be efficient, and we know that a naval architect has designed swift ships though blind, a mechanical genius has prospered as an inventor although deaf, and a chemist has won a reputation although partially paralyzed.

But a mining engineer must be physically fit—that is true beyond peradventure. Wide experience is only gained by travel, by investigation of mines under a great variety of geological and economic conditions; for example, an engineer known to the writer travelled on an average 35,000 miles per annum for twelve years in countries ranging from the Arctic to the tropics, under conditions which included journeys on horseback covering several hundred miles, expeditions on snowshoes in high altitudes, exploration on camel back over the Australian desert, not to speak of the more ordinary experiences of tedious trans-continental journeys by train and voyages round the world by steamer. Even under ordinary conditions, an engineer, during a large portion of his career, must climb through underground workings, travel amid continued discomforts, face frequent peril, and willingly incur the loss of adequate food and sleep, to such an extent that, unless he is endowed with a strong

body, he not only cannot endure the hardships, but he will become unfit mentally for the work of his profession—work which requires sound judgment at every turn—the kind of good sense which can only come to the *mens sana* when it is in *corpore sano*. Therefore, no youth to whom nature has denied the heritage of health and strength should choose a life which demands activity as the first requisite. Let such an one recognize the insurmountable obstacle before it is too late and direct himself to an occupation which is less trying to the physical man.

Physical fitness being granted, the prospective mining engineer needs all the other qualities which conduce to success in any career. Power of application is needed for the solution of the problems that will present themselves from day to day; a logical mind is itself a useful engine; the power of concentration is like a mill in operation; energy is required in a calling subject to competitive strain, and keen powers of observation are helpful in all scientific and technical investigations. These requirements, if met, will make up an individual capable of giving adequate expression to that combination of contemporary science, art, knowledge, and practise which we recognize as modern engineering.

Nevertheless, a man may have all of these and yet fail to crown his career with success, as success is usually counted in terms of esteem and possessions. To a young man about to become a mining engineer I would urge the necessity of two qualities which are innate; these, if absent, cannot be supplied from the outside, but, if present, can be cultivated to fruitful proportions. I mean honesty and tact. Honesty is the very foundation of

science. To say that two and two make five may be, in bookkeeping, wrong; in technical science it means chaos.

It is a truism, easily forgotten, that the methods of an engineer are based upon the facts of experience, and that any disregard of them brings inevitable disaster. Whether that disregard takes the form of a too sanguine temperament or the less attractive shape of untruthfulness, in either event the young man thus characterized starts life with a handicap which he is never likely to overcome. There are other callings in which this attribute in its milder form is not an unmixed evil; let him choose them and avoid the exacting demands of engineering, which, before everything else, calls for veracity of thought and action. For honesty is desirable not from the ethical point of view alone, but from the commercial standpoint also. Honesty has a commercial value—when it cannot be bought. In the selection of costly plant and machinery, in the control of large expenditures, and in the valuation of mines, there is between right and wrong not a line simply, but a space broad enough for the manœuvres of a regiment of cavalry. This wide margin between right and wrong must be brought down to a definite line; nothing but absolute intellectual honesty will suffice for the man who claims the honorable designation of engineer. No wonder then that men of unquestioned integrity command high salaries and that those who are the sport of circumstance are gradually weeded out as unfit for service.

Similar reflections can be made concerning tact, which is instinctive—a politeness felt rather than expressed; no man who commands other men and is himself subject to command can afford to be without it. A mining engineer, even more than the lawyer or the doctor, is

thrown into contact with all sorts and conditions of men, not in one country alone, but, during the course of an average lifetime, in several. In this country especially the workmen whom an engineer is called upon to direct belong to every nationality; he has to deal with political and industrial conditions of the extremest kind. Furthermore, his employers, whether directors or clients, number an extraordinary variety of people, aristocratic, plutocratic, and kakistocratic, educated and ignorant, domestic and foreign, so that much of his eventual success will depend upon a control of himself and a consideration for others, such as distinguishes a man of resource. You can get on without honesty and tact, as you can enter a house without the combination of a door and a key, but it does not take much of a philosopher to observe the advantages of these characteristics amid the chances and changes of a cosmopolitan career.

Mining engineering in its wider development is a new profession in America, although it can claim historic descent elsewhere. The bergman, or "mountain man," of Central Europe is the offspring of the primitive prospector who, in the early dawn of history, hunted for stones and metals such as he needed for defense or habitation. It is a long step to the Cornish mine captain, but the latter can claim descent from those who digged for tin before even the Carthaginian discovered Britain, and if he swings his glance from a misty past to the palpitating present he can regard as his own the capable mine managers who in recent years have gone abroad *per mare et per terram* in search for the hidden things of the earth. Moreover, it can be said that the mining engineering of the modern world divides itself into three distinct periods: First, there was the time, two hundred and

fifty years ago, when the Saxon engineers, led by Schreiber, were pre-eminent throughout Europe; then, the period, lasting fully two hundred years, during which the Cornish mine captain proved himself the best man; and now an era marked by the unquestioned reputation won by American mining engineers, a reputation which was first emphasized at the mines of the Transvaal, and has since broadened to Australia, Mexico and other regions.

In adapting itself to new conditions, the profession of the mining engineer has only recently begun to win a position comparable to that which it enjoys in Europe. In France, for example, the two ranking graduates from the Ecole Polytechnique have the privilege of selecting a career; that is, they have the choice between the school of mines and the school of civil engineering, and this resolves itself always into the selection of the Ecole des Mines.

Recollections of personal experience come vividly to the writer, in comparing the status which was accorded to a young graduate in two localities so unlike as the French-Italian Alps and the mountains of Colorado. Only fifteen years ago the product of a school of mining engineering would have found it inexpedient, in the Rocky Mountain districts, to mention his degree. He hastened rather to obtain the right to refer to experience gained at some mining camp, such as Leadville or Georgetown, in preference to making mention of an academic training, which only invited comment as to an unfitness for practical work. In France, on the contrary, to be an *ancien élève de l'Ecole des Mines*, whether of Paris or elsewhere, won an instant recognition of social and technical standing.

Nor has the comparatively severer attitude of our mining camps been without its good result ; it has taught the young graduate that the passing of examinations alone does not constitute a training sufficient to make him efficient, and that four or five years of apprenticeship must set the seal to the diploma of a man who is worthy of the title of mining engineer. Thus have various factors mutually reacted until today the mining engineer is a far more practical, and therefore more satisfactory man than he was, say, twenty-five years ago. He may not be as accomplished as his father was at the same age, for general culture has been sacrificed to a special training, but he is more in touch with the realities of things, he ranges himself more quickly alongside of facts, and is better able to go to the bottom of the practical problems which face him in his daily work. He may lack some of the fine touch of scholarship when compared to the men of an earlier day, he is not as good a mathematician, it may be, and his classics are distinctly weak, but a longer stay at university and school of mines, the aid of summer excursions to mines and mills, the closer contact with the men already in the field, and the diminution of the barriers of time and place brought about by rapid methods of communication, have all tended to make him better prepared for the career which he has chosen. The fact that such a preparation is readily obtainable is manifestly highly favorable to the choice of this profession by the youth of America. Our schools of mines and institutes of technology, in addition to the special courses now given at the leading universities, afford ample opportunities for securing an education such as is at least as good as, if not better than, that procurable in the older centres of learning in Europe.

In the United States the profession is still so young that on being asked recently to select two names of representative mining engineers to be placed on the Mining Building of the St. Louis Exposition, it was found most difficult to obtain suggestions which met with an agreement between any two persons qualified to judge. The vagueness of the calling, due to the multiplicity of its requirements, causes the mining engineer to grade from a combination of scientific geologist and mechanical engineer to that nondescript called a "mining man," who, in turn, becoming shabby, is lost amid the army of irresponsible adventurers. Thus does the "captain of industry" become, by descent, the *chevalier d'industrie*.

A promoter is born and not made; let no young man choose such a career when presented under the more euphonious title of a "mining man." Circumstances may evolve a promoter out of an engineer, and in his new sphere of activity he can do useful work, fully as respectable as that of the profession into which he previously graduated, but let no young man confound two occupations which are fundamentally unlike, and if the idea of following in the phosphorescent wake of a successful financial mining agent should occur to him, let me beseech him to take Punch's advice to those about to incur matrimony—Don't! It is an uncertain business at best, and most assuredly it is not engineering, although in the slang of the day to "engineer a deal" suggests that there is some smooth running machinery to be set in motion. To a few, after much experience in mining affairs and some tribulation, the organization and promotion of schemes to operate mines is a business which is no less remunerative than it is both exacting and honorable, if properly carried out, but as the deliberate choice of a

career on the part of a young man at the outset of life, I would say—looking around at the derelicts scattered in the wake of financial adventure—that it will probably end in leaving a taste in the mouth as of Dead Sea apples, as of sand between the teeth—a delusion and a snare.

Each to his trade ; let the young man starting out to become a mining engineer make up his mind to stick to his profession, turning neither to the right nor to the left, where easier avenues of wealth may extend their allurements ; let him realize that it is only by application and energy, by being consistent to a definite ambition, that he will succeed in winning that goal of success which is marked by esteem, self-respect, and, it may be, wealth. Thus doing, whether searching for the hidden ore amid the perplexing mazes of the underworld, or directing the activities of hundreds of workmen who toil in the subterranean darkness, the mining engineer can feel that he, too, is playing a fundamental part in the production of those metals on which the many storied superstructure of our complicated civilization is built, and that, in his modest fashion, he is a follower of one of the most beneficent occupations known to humanity.



F



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CIVIL ENGINEERING.

The best definition of civil engineering is probably that which was given seventy-five years ago by Thomas Tredgold, namely :

“Civil engineering is the art of directing the great sources of power in nature for the use and convenience of man.”

At the time this was written, however, there were but two recognized branches of engineering, one designated as civil engineering, and the other as military engineering, the former including all those branches not directly connected with military operations. But the remarkable series of mechanical inventions which distinguished the last third of the eighteenth century—the spinning jenny by Hargreaves, the spinning frame by Arkwright, the

mule by Crompton, the power loom by Cartwright, the steam engine by Watt, the puddling process by Cort, and others—followed in the first third of the last century by the development of the steam locomotive by Stephenson, the steamboat by Fulton, and by further great improvements in the manufacture of iron and steel, soon led to the differentiation of civil engineering into several branches.

The first branch to leave the parent stem was mechanical engineering, followed by metallurgical and mining engineering as the developments in the mining and reduction of metals progressed; and toward the middle and end of the last century the tremendous advance in all branches of applied science speedily differentiated engineers into the classes named, as well as into others. For instance, within the last quarter of a century the development of the electric motor and the other great discoveries in electrical science have led to the development of electrical engineering as a distinct profession, while the advances in sanitary science and the discoveries with reference to the nature, causes, and prevention of disease have resulted in the development of sanitary engineering as a branch of civil engineering quite extensive enough to constitute a profession by itself.

But notwithstanding the divergence of all these branches from the parent stem of civil engineering, even what is left to be included under this title remains undoubtedly the widest in scope of all the engineering professions, and in practising it a man must become a specialist in some one branch. It comprises the construction of railroads, of roads, of canals, of street and interurban railways, the improvement of rivers and harbors, the construction of lighthouses and other works necessary for

carrying on trade and commerce; it includes structural engineering, or the construction of bridges, aqueducts, foundations, steel frames for buildings, etc.; it treats of hydraulic engineering, including the development of water powers, and the construction of dams and power plants up to the point at which the mechanical engineer is called upon to supply motors; it deals with surveying, which is necessary in the laying out of works of all kinds, but constitutes also a branch by itself known as land surveying, which, when extended to the survey of very large areas in which the curvature of the earth must be taken into account, leads to the intricate problems of geodesy, or the measurement of the earth, and touches upon the field of terrestrial physics; and it further includes a great variety of problems due to the congregating of persons in cities—undoubtedly the most striking sociological development of the last century—including works of water supply, sewerage, the drainage of buildings and lands, the disposal of wastes, and the construction and maintenance of streets and pavements. This last group of problems, involving the health of communities, although now the special field of the sanitary engineer, is more generally considered as a branch of civil engineering.

Broadly speaking, as distinguished from mechanical engineering, it may be said that civil engineering deals with structures, or works at rest; while mechanical engineering deals with machines and motors, or works which are in motion. It will be seen, however, that the execution of civil engineering works requires at many points the collaboration of the mechanical or the electrical engineer, and that it also brings the practitioner into close contact with economic and sociological problems.

What, then, are the qualities which fit a man for success in this great profession? In the first place, it is evident that the ideal civil engineer must be a scientific man and at the same time a business man. He must have a thorough knowledge of the laws of nature, the fundamental principles of mathematics, and the materials of construction, for his work consists in applying these laws, principles, and materials so as to make them of use in the world's business. He should be essentially a man of action, not a bookworm. His work is not so much the discovery of laws of nature as their application and utilization, although he may incidentally or accidentally be a discoverer also. The pure scientist in his laboratory or the bookworm among his dusty tomes may discover laws and yet not claim or deserve the title of engineer. The engineer is he who makes them available for the use and convenience of man. His dominant quality must be practical common sense, combined with habits of care and accuracy, and with the courage and training which will enable him to solve new problems and to meet emergencies. He must appreciate, professionally as well as morally, the advice of Emerson, "Always do what you are afraid to do," provided he knows that he is right; but he must further appreciate the injunction, "Be bold, be bold; be not too bold." His mistakes may be very costly and his opportunities for effecting economies by skilful design and construction very great.

It must not be assumed that in order to be a successful engineer a man must be a fine mathematician. I should rather be inclined to say that in order to be a good engineer he must not be what would usually be called a fine mathematician, or at least that he must in addition possess other mental qualifications which are of far

greater consequence; for mathematics is in its essential conceptions and methods an abstract science, and the great mathematician is apt to lack the qualities of action, the quick decision, the accurate judgment, the ingenuity in meeting and overcoming obstacles, and the natural grasp and insight leading him to see the physical possibilities of a situation which must distinguish the successful engineer. On the other hand, the engineer should have a liking for mathematics, and a quick and instinctive grasp of its principles and methods, together with the insight which will enable him to see how they are to be made use of, and to use them properly when the time comes.

It is unnecessary to enlarge upon the general qualities of character, personal appearance, etc., which a man in any walk of life should endeavor to possess, and which are not peculiar requirements of the engineer. But it may be remarked that the training of the engineer is likely to emphasize for him one essential qualification, honesty. The student of nature is trained to seek only the truth. He is not concerned with endeavors to make the worse appear the better reason; but his only aim is to arrive at the truth concerning the eternal principles which govern the world around us, and to make them subservient to the interests of man. A lawyer is said to have remarked, "We don't want especially to get at the truth; we want to try cases." This does not imply a lack of honesty, but illustrates the lawyer's point of view, which is to make his case appear as strong as possible, leaving somebody else to decide what is right. This natural bias in the direction of truth is, perhaps, one reason why engineers are being sought after more and more to fill administrative positions requiring a judicial temperament. Indeed, taken as a whole, I believe there is no profession

which can be more depended upon for absolute integrity and unswerving honesty. On the other hand, the work of the engineer is often of a character which does not produce polished manners or a good address, the lack of which qualities is sometimes a bar to the highest success.

How shall a young man best prepare himself for this profession? Since it is a business as well as a science, some of its members have entered it from the business end and some from the scientific end; that is to say, some have begun in an engineering office, gaining experience and studying at the same time, while others have begun by getting a thorough technical training in an engineering school. Some of the best engineers in the profession have pursued the former course, and in England it has been the usual custom for a young man to become articled as a student to some practising engineer, paying a round sum for several years for the opportunity, instead of receiving any compensation for his services. But at the present time it may be stated unhesitatingly that the only proper and safe way to become an engineer is to obtain a thorough training in one of our engineering schools. There are many things that the great majority of men will never learn unless they learn them in a professional school; and nowhere else can a man gain so well or so quickly the breadth of view and the adaptability which will enable him to meet new problems. Moreover, the young man who aims to become an engineer should secure a broad training, not devoted entirely to technical subjects, but covering those subjects of a general nature which are necessary for every thoroughly educated man, such as the English language, one or two foreign languages, history, economics, and literature. The time has arrived when engineering should

take its place as one of the learned professions, and when it should be considered necessary for an engineer to be as broadly cultured as a doctor, a lawyer, or a minister. Indeed, the engineer has not yet been given a station in the business or professional world, and does not yet receive the financial remuneration to which his responsibilities and achievements legitimately entitle him. He has too often been looked upon as a high class mechanic or builder. This is due partly to the fact that some engineers deserve this designation, while many more have been narrowly trained, and have too few interests and too little information outside of their specialties. But all this is rapidly changing, and the engineer of the future will take a position in society and business as a cultivated and highly trained man, on a level with men in any of the other professions.

As to the manner of obtaining this broad and thorough education, differences of opinion will be found among even those best qualified to judge. Probably the advice of the majority would be to go through college and then to take a course in a professional school. My own advice, however, would be to lay out such a course of five or six years in one institution, studying some general subjects and some professional subjects in each year, with an increasing proportion of the latter as the student progresses. There are serious objections, as well as some advantages, in the plan of getting one's education in layers—first a general education and then a professional education. Professional and non-professional subjects are encountered and pursued simultaneously in after life, and why should they be separated in the schools, and studied tandem instead of abreast? The great fault with the ordinary college course is that it fits a man for nothing

in particular, and that while pursuing it most men are working with no definite aim. Perhaps it is not exaggerating to say that the average college student (as distinguished from the professional student) looks upon his college course as a period of passive enjoyment. This spirit is in a way demoralizing, and leads to careless habits and a lack of concentration. With entrance into the professional school a different atmosphere is encountered, but why should not this be developed from the beginning? In the mind of the ordinary student, and especially the student who has a practical turn of mind, and is therefore qualified for an engineering career, there is nothing that lends interest to a subject so quickly as to see its application, and the student of engineering should constantly bear in mind that he must study a thing not for mental training merely, but with the object of doing something with it. He should study from the concrete, not the abstract, point of view. The world has become utilitarian, and it is probably generally recognized that the mind can just as well be trained by studying subjects that are of practical use, and with the definite object of making them of practical use, as in the pursuit of scientific or metaphysical abstractions. If these ideas are correct, it follows that, closely following the study of a science, or coincident with it, the student should be made to see at least some of its applications in his professional work.

The scheme of laying out a single consecutive course, including both general and professional studies, will be met by the objection that a young man cannot in general decide so early what goal he will aim at. This objection has force, yet it ought not to be difficult for a young man to decide early along certain broad lines—as, for in-

stance, between a literary or a scientific course—and as he progresses to gradually narrow his aim toward one definite profession. Engineers of all kinds, and even professions so far different as engineering and medicine, require to a large extent the same training. Indeed, it is a question in my mind whether an engineering training is not as good a preparation as can be had for any occupation whatever, supplemented if necessary, of course, by instruction more directly applicable; for a training in the practical applications of science must be of use to a man in any career. I know artists, doctors, lawyers, ministers, and economists who have graduated from engineering schools, and I have yet to find one who regretted his engineering training. They all unite in saying that it taught them to accomplish, to work with a purpose, and to economize time, and that they have found these qualities invaluable.

The early choice of a course of study, then, ought not to be difficult, within broad lines, and with the exercise of care on the part of parents and teachers. As a matter of fact, the lack of due care and observation on the part of parents and the slight grounds upon which a young man will enter upon a definite career, together with the reluctance with which he will give it up even when shown to be hopelessly unfitted, are often amazing.

My advice, then, to young men who desire to become civil engineers is to take a thorough course in professional and non-professional studies in a good American technical school or university. It is not now necessary to go to Europe to obtain the best preparation for this calling. Thirty or even twenty years ago this could not be said, but at present our schools offer opportunities as good as are to be found anywhere in the world. Fortun-

ately, there are in this country so many well-equipped engineering schools and so many scholarships and other provisions for poor persons that any young man with grit and courage, aided, if necessary, by working during vacations and borrowing money besides, can obtain an engineering education. I would advise any young man who is fitted for the profession and who cannot obtain an education otherwise, to get it by the help of borrowed money. I have in mind one young man who took a course of four years at a technical school and came out over \$1,000 in debt. His services, however, were at once in demand, and he paid off his indebtedness within a year and a half.

The opportunities presented to a young man upon the completion of his technical education will be many and varied. Indeed, instead of the profession being overcrowded, there are probably few occupations in which there is so much room. Nor should it be forgotten that the civil engineering graduate will find open to him many purely business positions for which his training will have fitted him. The range of the profession is continually widening, and this is true not alone of civil engineering but of other branches, one direction in which they are rapidly extending being that of administration. The industrial development of our country has taken place almost entirely within the last fifty or sixty years. Within that period our entire railroad system has been built, most of our factories started, our works of water supply and sewerage constructed. The construction of these works has required the services of most of our engineers, while the opportunities of profitable employment here have attracted many members of the profession from foreign shores.

The civil engineer of the past has been mainly a constructor. But within the last few decades the construction of new works, while still proceeding with great activity in certain directions, has, probably, on the whole, relatively declined. Our railroad system, for example, is essentially complete, and, while branches, new lines, double tracking, terminals, and local improvements will still be required, often on a large scale, the great era of railroad construction may be said to be ended. On the other hand, the construction of urban and interurban electric lines has within the last few years proceeded with great rapidity; while the increasing growth of urban population and the advances of sanitary science have recently given a great impetus to the construction of works for rapid transit and of works for supplying pure water and for disposing of sewage and wastes without injury to the public health. Indeed, the magnitude of the works which have been executed within a few years in and about our great cities, or which are now projected or in process of construction, almost passes belief. Enormous sums of money have been and are to be expended for such purposes. But the new field of administration has opened for the civil engineer, and if his services are relatively less in demand for construction, which is doubtful, they are certainly in increasing demand for maintenance and administration. It is becoming recognized that the man with common sense and a good technical training, if he have also a talent for organization and executive ability, is the best type of man to direct the work of our great industrial corporations. Some of our large railroad corporations have within comparatively few years instituted the practice of choosing their higher officers from their engineering corps, instead

of from other branches of the service. Not a few railroad presidents began their careers as civil engineers, and the number of such men will increase in the future.

The field of the engineer may, therefore, be said to have greatly widened at the top, where there is always room, while during the last few years there has been an unexampled demand for young men just entering the ranks of the profession. During the last six years, the professor of civil engineering in any of our well-known schools has probably had applications for three or four times as many men as he has had available. A young man who graduates from a good technical school as a civil engineer, and who can be personally recommended by his teachers, will be sure of a position which will enable him at least to pay his expenses and save a little from the start, while his future will be assured if he has the requisite ability, perseverance, and character.

The average salary received upon graduating will be about \$60 a month, ranging from \$45 to \$75. This will in many cases be more than he is worth until he learns the routine of his work; and a young man just graduating should realize that, while he has received his school training, he is just entering upon the practice of his profession, and that he ought to begin at the bottom and learn thoroughly all the details of the branch of the business in which he engages. But he should climb rapidly. A year after graduating he should command about \$1,000 per annum, at the end of five years double as much, and at the end of ten years he should have attained an assured place, many men at this stage earning from \$4,000 to \$8,000 a year.

The young man, however, who goes through college because he is sent, doing only just enough to pass his

examinations, and who then enters this profession with the idea of finding an easy job ; who does simply what he is told, reads the papers during office hours, and is always ready to quit work when the bell rings, will soon find that there is no place for him. In no profession does hard, conscientious work count for more than in this ; and, while the possible pecuniary rewards are perhaps not so great in engineering as in some other professions, the average earnings are probably larger than are received by other professional men. Particularly at the beginning of his career does the engineer have an advantage over the young doctor or lawyer, who may not be able to meet his expenses for some years. The pecuniary rewards, however, are still amply sufficient to tempt even the most ambitious men, particularly considering the possible openings in administrative and business positions. Earnings of from \$15,000 to \$40,000 a year are probably made by a number of prominent engineers in strictly engineering practise, while the number of those who receive \$6,000 and over is undoubtedly very large, and the number of impecunious civil engineers is very small. But while the average engineer, if a competent man, is probably not paid what his responsibilities warrant, he will undoubtedly be more and more appreciated as the years go by. The profession is a growing one, it has great possibilities, and few careers offer greater inducements or surer success to the energetic, capable, and upright young man, for we live in a mechanical age, and the work of the man who can "direct the great sources of power in nature for the use and convenience of man" must continually increase in importance.





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REAL ESTATE.

In the real estate field there are many kinds of work and workers. A glance at the workers will show that a large number of the realty leaders are young men or not much beyond the prime of life. The number of such men will undoubtedly be greatly increased in the near future, for the realty market is particularly in need of them, and the future it holds in store appears bright.

The youth who enters the real estate market in hope of reaching a top notch should be no weakling nor wanting in a fair education. He must have a resolute will, an energetic disposition, and a fair memory for dates and figures. He should also be a close observer of human nature, be courteous in manners and appearance, and, furthermore, should be able to cultivate a cheerful way of taking up and mastering the details of the realty market. For that young man success is almost assured, and, even if he should fail to attain his ambition, he will

be free from the remorse of spirit which follows a faint-hearted effort crowned with a bitter disappointment. It may be said that the picture here drawn is that of the perfect young man; but that is the kind to whom will be offered in the realty market the choicest places and the most important work in the near future and in the coming generation of business men.

Physical stamina is an important requisite to success in the realty field for many reasons. Simply to keep run of the market is a tax on a man's strength. Seldom does a day pass without a fair number of transactions being reported. Among these will be auction and private sales, building loans, plans for buildings or alterations. Then the transfers of titles, mortgages, *lis pendens*, and mechanics' liens recorded demand attention. Taken together, they should, in a certain sense, reflect the present and probable future condition of the market. Every well-regulated office has books in which such transactions are recorded for future reference, and the chief value of these books depends upon their accuracy. If the transactions of any day be read in a careless manner the indifference shown by the reader to his business interests may not only cost him many hours of unnecessary labor later, but also pecuniary loss. No man, unless gifted with a marvelous memory, can be expected to remember the lesser sales or transactions of a previous year, but he should be fairly well posted on the greater sales of the past, which have or are likely to have bearing on the present or immediate future.

By close attention to the records of every day the observer will have a general idea of values, and by forming comparative tables of previous and present prices he will learn whether land in certain sections has grown cheaper

or dearer. From this knowledge he may be able to find for himself the causes which have wrought the changes. Some men there are who make specialties of particular districts, as brokers, operators, investors; but, while thus placing limitations to their business sphere, they cannot overlook what is taking place around them without running great risks.

By constant study a fair knowledge of what has actually been done may be acquired. But to foresee probable developments requires more than a good or bad memory. It is said that a person is born a prophet of realty conditions. The use of this assertion is an easy way of avoiding a discussion or an explanation of what mental qualities go to make a prophet.

The closer a person gets in touch with his fellow men the more he is likely to know their likes and dislikes. The public often has peculiar ideas about buildings; it can quickly create a demand for certain types. An individual may erect buildings, the architecture or location of which is not attractive. The public will have none of them at any price, and therefore the builder suffers a severe financial loss. He might have achieved a singular success had he known and appealed to the whims of the public. It may take many hours in every month to keep in touch with the popular trend and to learn what is to be wanted tomorrow; but in the long run it pays.

In some sections the demand for apartment-houses is growing, and the number of dwelling-houses there was long ago too great. Elsewhere conditions exactly opposite will be found. Some years ago the majority of families in comfortable circumstances seemed to prefer dwelling-houses to flats or apartment-houses, but now their preference is, beyond a question of doubt, for the

high class apartment-house. This change of opinion is due to many causes, the principal one being the servant problem. Many builders who were good judges of human character and kept in close touch with the trend of public thought, were positive years ago that the popularity of the apartment-hotel and the apartment-house would increase, and they turned their attention to the erection of high class buildings of these types. In most cases they were well repaid.

In recent years, in some sections, the building of apartment-hotels and apartment-houses has been somewhat overdone, as the buildings have been so constructed that the cost of maintenance is greater than the rentals. Abnormal conditions in those sections will exist in the near future. When they do the observant realty man will see them and grasp the opportunities that they may reveal. It is absolutely necessary to be ever wide awake to what is going on, and for that reason too much stress cannot be laid on an uninterrupted observation of real estate transactions and conditions.

A man may become a specialist in the market and limit his field of operations. The specialist, however, is bound by as many exacting duties as he who labors in the entire market. Ordinary reports of real estate transactions do not furnish all the news that he must read. If possible, he should have a general idea of the news of the day, and especially that which affects the city or the place to which he confines his operations.

When a young man enters the real estate market he may have considerable doubt as to the line of business to which he will pay the most attention. He may decide to become a builder. If the beginner has sufficient money to undertake building operations he will have to depend

for many years on the advice of persons he employs to superintend the acceptance and carrying out of contracts. As he has had absolutely no experience in the building line, or, in fact, in any line of the real estate market, how can he place any reliance on his own ability to know what is good or what is bad advice? He may be carried to success by those he has gathered about him, but it is best to learn the fundamental work of such undertakings first before assuming the work of an expert. If he takes up the study of architecture he will be better prepared for the important duties which he expects to assume.

Should he decide to confine his operations at first to buying or selling for himself or for other persons, his efforts will make him known to a large number of persons. He will hear the old and the young men in the business express their opinions about the property offered or to be bought. Some will, no doubt, tell him that they do not want the property at any price, others that the price is not only too high, but the location is undesirable for the plans for improving that they have in mind. He should receive these opinions and expressions with a wide open ear. They may be hard to hear. They may feel worse than the sting of a wasp. They may act as a damper to his energetic spirits. He should not be easily discouraged, however, but should be ever smiling and courteous. Cheerfulness and courtesy are infectious and may win for the possessor many lasting friends. Through these he may be able to increase the volume of his business or to get a firm start in the market. It does not always pay to meet with unusual success soon after beginning a real estate career, as such success may lead to carelessness.

A national tendency to reveal the cheerful news and

to help conceal the bad news will be found in realty circles. Great financial losses in the market cannot be hidden away, any more than can a long spell of inactivity in the sales or building lines be kept a secret from the public. What is true about realty conditions here is more or less true about similar conditions elsewhere. How many persons have heard tales of large losses through realty speculations? Probably not one in a thousand. These tales may be called the secrets of the realty market. Many men and women have lost fortunes in the effort to make money in realty investments. The person who is not thoroughly acquainted with real estate transactions may be inclined to put these losses down to a lack of the use of common sense, for has he not often heard of the vast fortunes which the Astors and many other well-known families have made from real estate investment, and was anything ever said to indicate that any one else could not have been just as successful if he had lived at the right time to become identified with such transactions? In view of these remarks, the question may be asked: When is the right time to become identified with realty transactions, and are the prospects of success as inviting now as they were years ago?

Since 1609, when Henry Hudson, as an agent for the Dutch East India Company, made a voyage up the river which now bears his name, in his little ship, the *Halve Moen* (Half Moon), the island of Manhattan has been transformed into the great metropolis of the New World. From accounts of the early Dutch settlers on the island, it is natural to think that most of them when they first set foot here, were lithe of limb and either youthful or not far beyond the prime of life. It is reasonable to think that before they sailed from Holland they deliberated on

their fitness to come. With as much deliberation should the person thinking of beginning a real estate career measure his capabilities. The average road to success in the real estate market is long, and on it the traveller usually encounters many disappointments and setbacks. If a young man is thinking of becoming identified with the realty market the time to enter the field is now. When he has grown to be an old man many years of close association with his fellow men may have marred the beautiful pictures of life which he held. His tread may then be slow, his voice weak, his memory poor. If he enters the market then, how many persons will be attracted by his coming or feel his presence? Yes, in youth is the best time to begin.

A young man who intends to consider the whole country as his field for work would be well repaid by making a careful tour of the country and a study of the people, of the financial and mercantile enterprises, and of the probable future realty growth and demand. Cities, towns, and villages are growing in the West like mushrooms in a night. The West is only in the infancy of its growth, and it will be considerably greater in many respects in the near future than it is now. It seems that calamities by flood or fire or hurricane cannot arrest for any great length of time this tendency to build and grow. The fire which almost destroyed the entire city of Chicago did not cause a serious setback to its growth. In fact, newer and better buildings rose on the sites of those that had been destroyed. In some sections of the country the greatest losses to lives and property have been from floods. It was not so very long ago that Galveston was swept by mighty waters from the Gulf of Mexico. Many times has New Orleans been in the throes of a yellow fever or

smallpox epidemic, and the officials of that city, in their efforts to wipe out the scourge, were forced to destroy by fire many buildings. These epidemics have not arrested the progress of New Orleans, and she has been growing rapidly, while medical experts have succeeded largely in stamping out indigenous diseases. It is now a generally accepted theory that a species of mosquito is the cause of the spread of yellow fever. By wiping out the breeding places of this kind of mosquito, the danger from yellow fever outbreaks is greatly reduced, with vaccine virus the medical world has a powerful preventative against smallpox. These references are given in order to show that the confidence of the persons who kept on building and improving such cities as New Orleans—in spite of the yellow fever, smallpox, and other epidemics—in the ability of brains to lessen if not to obliterate the conditions favorable to such epidemics, was not misplaced. It was of the right kind.

Builders, investors, and speculators must assume certain risks, and some of these risks will be due to their opinion as to the realty growth of the section in which they have invested. For guideposts for the future most people look to the past.

Real estate history shows unquestionably that the opportunities for real estate success are to-day just as great as, if not greater, than they were years ago. The country is growing, times are prosperous, the majority of people are happy, and science and art are winning new laurels continually. Where are the signs that times will soon be bad and that the upgrowth of the country is to receive a serious setback? Nowhere, absolutely nowhere.

It is not easy to answer the question of why these times present opportunities in realty fields equal to, if not better

than, the earlier young days of the market. A man who sets out on a journey must have reliance in his ability to reach his destination and to accomplish his object. Without confidence in his own prowess he would be poorly prepared to do what he hopes and expects to do, and his want of faith in himself might bring ruin. The old and young men who think that the city or country has been overbuilt, and that the opportunities for success in realty fields are small, should turn their attention to some other line of business. In their very make-up they are unfitted to be part or parcel of the realty market.

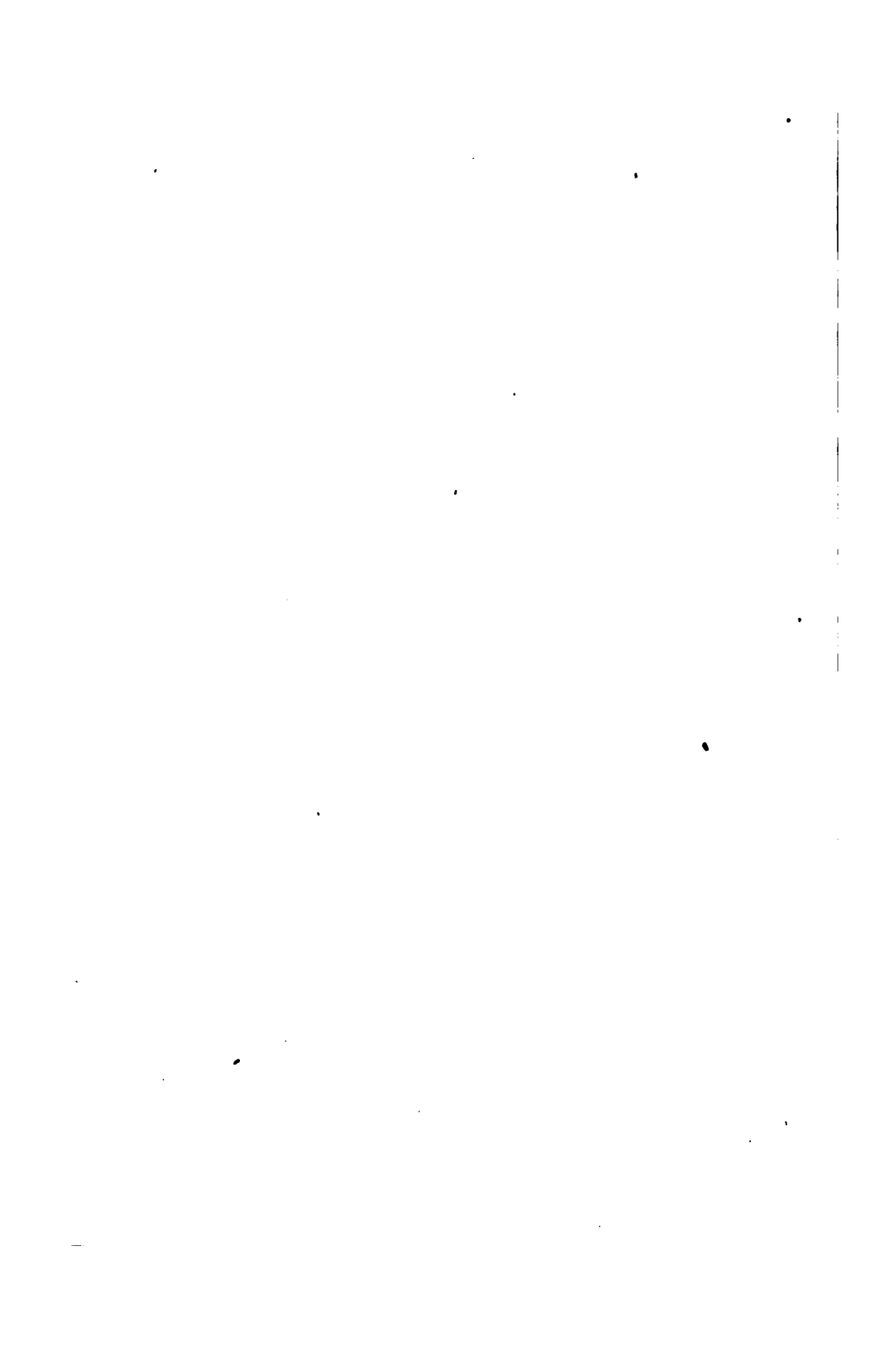
Many years ago, when Twenty-third Street was considered to be a long distance north of the heart of the city, the owner of a large tract of land at Gramercy Park decided to improve his property or to take steps looking to such an improvement. The northward growth then was slow—so slow, in fact, that extraordinary measures had to be used to quicken the movement. One of these measures was to offer titles to small parcels free and clear if the one who received the title would swear that he would build a house for his own occupancy on the property or would improve it in such a way as to enhance its value. This is taken from the writings of some of those who lived in those days and who wrote about the conditions existing then. They show how little confidence was placed by the general public on an early and profitable development of what was then the outskirts of the city. The lack of confidence may have been largely due to the poor transit facilities. Trolley and elevated railroad lines and cable roads were unknown in those days. With these vehicles of locomotion towns and villages which not long ago were thought to be a great distance from the centre of the city are within easy reach.

Moreover, the cost of journeying to them is much less than some years ago. Owing to these facts, the demand for lots in nearby towns and villages is considerably greater than when it was a long, tedious, and costly trip to get to them. The demand for property in the suburbs is growing rapidly, and the value of the real estate of the towns and villages has risen to unexpected marks in recent years.

Similar conditions prevail throughout the country. Remote villages, towns, and cities have been brought close together by the building of trolley lines or by better railroad facilities. Every such improvement, except in those instances where a rapacious railroad company has laid railroad or trolley tracks on a road or avenue which should never have been used for such purposes, has had a general beneficial effect on real estate. Who can say how much closer towns and cities will be brought by future developments of the trolley and railroad systems, and especially by the automobile?

A well-known man of conservative mind recently said that he thought it would not be many years before there was an almost unbroken line of splendidly built houses along the Atlantic Coast from Maine to Florida, or, in other words, a city extending from the north to the south limits of the country. The same writer also said that it would not be long before the whole of Long Island was thickly populated. These brilliant pictures of the future may be full of false colors, and, therefore, practically worthless. But it is self-evident that large tracts of land are only just being opened up by the building of trolley lines and railroads and by the offering of cheaper fares. The better towns and cities are united by this means, the greater becomes, under ordinary conditions, the business

life of the places affected. Has the business of any city or town been known to be decreased by extending trolley or railroad lines so as to tap outlying districts? No such case can be recalled. In this real estate prosperity of the future it is almost a certainty that young men will share largely and will be well paid in a financial sense.





JOHN F. DRYDEN,

**UNITED STATES SENATOR, PRESIDENT OF THE PRUDENTIAL
INSURANCE COMPANY OF AMERICA.**

LIFE INSURANCE.

"Life insurance," in the words of De Morgan, "though based upon self-interest, is the most enlightened and benevolent form which the projects of self-interest ever took. Stripped of its technical terms and its commercial associations, it may be presented in a point of view which will give it strong moral claims to notice." In its origin a British institution, life insurance has developed most rapidly and on the largest scale in the United States. Practically unknown in this country a hundred years ago, and of insignificant proportions even fifty years since, the last half century, and in particular the last ten years, record what must be conceded the most marvelous business success of this or any other age.

While there are many forms of insurance protection, legal reserve life insurance alone offers the absolute as-

insurance that the obligations incurred and the promises made will be ultimately met with certainty. Of such companies there are about eighty in active operation, with about four million "ordinary" and about thirteen and a half million "industrial" policies in force. The accumulated assets of these companies exceed \$2,000,000,000, and the annual payments to policyholders \$200,000,000. The annual income is more than \$500,000,000, while the surplus to policyholders exceeds \$300,000,000.

Life insurance has been defined as a social device for making accumulations for meeting uncertain loss of capital, which is carried out through the transfer of the risks of many to one person, or to a group of persons, in clear recognition of the principle that "the aggregate danger is less than the sum of the individual dangers, for the reason that it is more certain, and uncertainty of itself is an element of danger." Primarily devised to provide for the support of widows and orphans, the practise has been developed so as to include the secure investment of surplus earnings, in conjunction with the insurance of a sum payable at death.

In virtue of these principles the system has been developed to an extraordinary extent, but however widely diffused it is safe to state, with a reasonably thorough knowledge of the facts, that the real development of the business is of the future rather than of the present, and that the actual progress which has been made during the last thirty years will be in contrast, rather than in comparison, with the far greater progress and further extension of the business during the next thirty years.

This, then, appears on its face a reasonable proposition, that for a career many young men would choose well and wisely to attach themselves to what already is one

of the foremost and most important business enterprises of the age. Subject to no violent fluctuations, of an enduring character, and growing at a rapid rate, the administration and management of this business require an army of men of exceptional ability, integrity, energy, and insight, and to such the business offers not only adequate compensation, but more than average remuneration. In no business, it is safe to say, is the division of labor carried to so high a degree of perfection and at such little cost of the individual. In life insurance the greatest possible range of opportunity is given to every individual worker, whether in the office or outside, and the gradations of employment are such that at least a moderate amount of success is within the reach of all who conform to the simplest principles of industry, energy, and integrity.

Broadly speaking, there are two distinct methods of life insurance on the legal reserve plan, namely, ordinary and industrial. Of the two the latter is relatively the more important, in that it reaches a very much larger number of people. The essential difference is in the method of paying the premiums, in that industrial payments are weekly and collected from the houses of the insured, while ordinary premium payments are quarterly, semi-annual, or annual, and required to be sent to the office of the company. A further distinction is that the average amount of insurance is about \$120 on the industrial, against about \$2,100 on the ordinary plan.

These two distinct methods of life insurance, although derived from the same fundamental basis of mortality and finance, offer different opportunities for young men who make a choice of life insurance as a career. Again, speaking broadly, the work of a life insurance company

is divided into office work and field work, or administrative and agency work. By the latter term in industrial insurance is understood the soliciting for new business and the continued collection of the weekly premium; in ordinary insurance only the soliciting for new business and the collection of the first annual premium. The home office work is practically the same, except in so far as the administration of an industrial-ordinary company is more intricate, more scientific, and more subdivided into different departments, on account of the enormous number of risks insured. With an industrial company the number of risks is counted by the million, and the new weekly proposals alone average from twenty to thirty thousand. This requires a large machinery for accounting, inspection, tabulation, analysis, etc., and for this reason the home office of an industrial company may be said to offer a wider field for the development of individual talent.

The field work of ordinary and industrial agents has much in common, and yet there is a radical difference. Both classes of agents have to secure business by personal solicitation, with this difference, that the former reaches the more prosperous element of the population, while the latter is expected to canvass largely among the families of wage earners or people of small means. This work is thoroughly supervised by district superintendents and assistant superintendents, who are responsible for the most effective management of their respective districts. While the average amount of insurance under industrial policies is about one-seventeenth of that of the ordinary, the opportunity for insuring the entire family increases correspondingly the opportunities for making an agency a position of material importance. The usual method is to transfer to a new agent a certain amount of collectible

premiums, and through this introduction to the business he becomes familiar with the territory and soon adapts himself to the local conditions. Promotion is rapid from the position of an agent to that of an assistant superintendent, with a guaranteed salary, and to the still higher position of district superintendent. Very little technical education is required for industrial field work, and the chief elements of success are energy, tact, and integrity.

Additional attractions for employment as life insurance field workers are the opportunity for outdoor life, contact with different elements of the population, and perhaps most of all, the certainty of finding remunerative employment in any part of the country—in fact, in almost any part of the civilized world. A good solicitor for life insurance can secure a paying position anywhere, and he will be readily employed if he can furnish satisfactory references and credentials.

Ordinary solicitors require a fairly thorough technical instruction in the general principles and practice of insurance, since the large variety of plans of insurance offered to the public by different companies makes competition very keen, and success often depends upon a perfect knowledge of the intricacies of the business. The more thoroughly the ordinary solicitor realizes the necessity for personal canvassing the more likely it is that success will be attained. The business cannot be advantageously carried on in connection with other employment. An agent should understand the fundamental principles of life insurance and have a thorough knowledge of every plan of insurance sold by his company and its chief competitors. The men who succeed best are those who limit themselves in their arguments to a straightforward statement of the facts in the case—in

other words, to the cost of insurance and the results to be realized by the insured. Men who adapt themselves to the exigencies of the occupation are practically certain to meet with modest success, and reasonably certain to meet with more than average success, such as would follow corresponding efforts in other directions.

The general status of the life insurance solicitor has very materially improved within recent years, largely because of the superior class of men who are now attracted to this calling. The arguments in favor of insurance have become more intelligent, the literature distributed for the information of the public has been freed from technicalities and from controversial arguments, while at the same time the public at large has become more thoroughly familiar with the value and advantages of life insurance protection. Other things equal, it is safe to say that the best success is attained in communities in which a large number of companies are represented and actively engaged in the extension of their business. To agents, industrial as well as ordinary, who will adapt themselves to conditions under which success is granted, the business offers to-day exceptional opportunities for remunerative employment and for rapid promotion to higher grades of field management or to the administrative branch of the business, probably more so than in banks, railways, or other financial and commercial enterprises.

The general management of a life insurance company is under a board of directors or trustees, according to the character of the institution—whether proprietary or mutual. The direct administration is in charge of officers and officials, to each of whom specific duties are assigned. The president's duty is to maintain a general supervision over and direction of the business of the company, both

in the office and in the field, but in particular he must give his attention to the care and investment of the company's funds and to other financial transactions—a great and far-reaching responsibility.

The vast office machinery of a large company is exceedingly complex, and not readily separated into its integral parts, but, speaking generally, there are usually three groups of officers—the first being in charge of the office and field administration; the second representing law, finance, and real estate; and the third the actuarial, medical, and statistical departments.

The ordinary field administration is always under the immediate direction of an executive officer, usually one of the vice-presidents. The territory is divided into sections, each of which is in charge of a manager, who will have under him the general and special agents, whose principal duty is to solicit for new insurance. Ordinary agents are not paid a salary, but they receive a commission on new policies secured and a renewal interest in the subsequent premiums paid. In this manner permanent relations are established between the company and its ordinary field force, and remunerative incomes are built up by degrees as the result of intelligent effort. The office work in connection with the ordinary department is quite involved, and therefore offers a ready field for the development of individual ability.

The industrial field operations are also always under the charge of an executive officer, generally a vice-president, and subordinate to him there are division managers, to each of whom a particular section of the country is assigned. The actual field work is managed by a district superintendent, assisted by assistant superintendents, under each of whom there are a number of agents who

collect the weekly premiums and solicit new insurance. Industrial agents are paid a commission for collecting the regular weekly premiums and a special commission for new insurance written. Industrial agents also write ordinary insurance and thus increase their incomes. The superintendents and assistants are paid regular salaries, but they have an interest in the work of the district and receive additional compensation for ordinary insurance secured through their own efforts. Inspectors are employed for the purpose of investigating different districts and for occasionally taking charge of districts during the temporary absence of the superintendent, or for other causes.

The general office organization is divided into a large number of departments, each of which is under a manager and assistant manager, who in most cases have reached their positions by entering as clerks and often as office boys. The more important branches are the supervisor's, cashier's, auditor's, bookkeeper's, policy issue, claim, purchasing, editorial, advertising, mail and supply departments. Some companies have their own printing department, managed as a distinct commercial enterprise, with work limited to the needs of the company. Life insurance companies usually publish weekly or monthly publications for the instruction of the agency force and the information of the general public.

The qualifications for employment in the general office departments vary, but as a rule the commencement is in an inferior position, from which promotions are made to junior clerkships, special clerkships, assistant managers, and department managers as occasions arise. The employment is practically permanent, once a position of some

importance has been attained, for the unqualified are readily forced out of the service after a sufficient trial.

Most of the legal work of a life insurance company is in connection with the passing upon titles, securities, investments, etc., but there is opportunity for the development of legal talent of a high order, and, aside from the usual qualifications, a special knowledge of corporation law, insurance law, and medical jurisprudence is necessary and of exceptional value.

Under direction of the president, the finances are in charge of a controller, treasurer, and cashier. The general duties in this department resemble the management of banks, trust companies, etc., and there are accordingly separate divisions for the conduct of the different branches of the work.

The actuarial department is in charge of the actuary. The work is divided into different sections according to the highly differential nature of the work. The main division is actuarial and mathematical, and the special requirements for employment in the last-named department are a thorough knowledge of mathematics and familiarity with general insurance principles and practise, the general principles of finance, and a knowledge of the practise and results of other life insurance companies.

The medical department is in charge of the medical directors, who primarily supervise the acceptance of risks on the basis of individual medical reports made by local medical examiners. Every risk is passed upon by office medical examiners, and undesirable risks, for a variety of reasons, are rejected. The requirements for employment in this department are various, but a thorough knowledge of the theory and practise of medicine, in particular of life insurance medicine, medical jurisprudence,

physical diagnosis, urinalysis, etc., are essential. Local medical examiners are paid a fee for each examination, the amount of which varies according to special and well-defined circumstances.

Some companies maintain a statistical department, under the direction of a statistician, whose duties include the collection and analysis of data pertaining to life insurance, the tabulation and analysis of medical statistics, special investigations into mortality problems and a variety of other duties not readily defined. The special requirements are a thorough knowledge of the theory and practise of general statistics, some knowledge of mathematics, and a broad understanding of social and economic problems, of longevity as affected by occupation, climate, habits, heredity, etc. A part of the statistical department is a library of insurance, medicine, law, finance, etc.

In a general way, it may be said that the scientific temperament is most likely to lead to success in home office administration. This term is here made use of in the widest sense. Perhaps the first principle of success is absolute accuracy, which, in other words, means a careful training of all one's faculties, since the trained eye is able to see where the untrained eye discerns nothing. Scientific training, as well as all higher education, distinctly qualifies a man for administrative responsibility.


The work of a home office may be compared to the work of a general staff of an army, the very purpose of which, in a large measure, is to seek the problems that ordinary observers cannot see. If anywhere there is necessity for the preaching and practice of what President Roosevelt calls the gospel of intelligent work, it is in the office and field administration of a life insurance company. There is an increasing demand, not only for men

of energy and ability, possessing integrity, tact, and perseverance, but also for specialists, to bring to higher perfection the numerous minor departments for the investigation of facts and forces beneath the surface of everyday business experience. The demand for young men of exceptional ability is out of all proportion to the available supply, and there is abundant opportunity for the profitable employment of large numbers of college-bred men, or men of higher education, who are practically certain, other things being equal, to make a greater success in the field of life insurance than in any other branch of commercial enterprise.

Education in life insurance as a business has during recent years been introduced into colleges and universities, and some of the leading institutions now have general courses in insurance which possess considerable intrinsic merit, aside from the encouragement given to the development of special talent. The education of field men forms part of every large insurance institution, and aside from manuals of instruction, special literature on particular subjects, leaflets explaining particular policy forms, etc., meetings and conferences are held, at which agents are addressed by qualified speakers, for the discussion of problems of practical field administration. The work of agency instruction is supplemented by life underwriters' associations, which usually combine social and educational advantages. The education of the general public in insurance principles and practise is also an important means of business extension, and all the larger companies publish literature for the information of the public, setting forth the advantages of particular forms of insurance or dealing with matters of general interest, such as the taxation of life insurance companies, the so-

cial duty of insurance, the comparative advantages of life insurance as a mode of thrift, etc. Some companies have published their history, and a number of valuable works on the technical aspects of life insurance have been placed on the market by insurance publishers. There are many valuable journals devoted entirely to insurance matters, and State insurance departments annually publish reports which contain a mass of information, with the essentials of which every agent or office man should make himself familiar. The social aspects of life insurance are gradually being recognized by writers on questions of social reform and by students of political economy.

There is, therefore, a considerable basis of theory and experience available to students of insurance problems, reasonably sufficient for the preliminary technical education of those who make a choice of life insurance as a business career. The opportunities for individual development are exceptional, but the business is exacting in its details, and the competition between different companies is so keen that all that goes to make character in man is required for individuals to attain more than a moderate success. While it is entirely true to say that modest success is possible to any one who will exert himself with a reasonable degree of efficiency and energy, it is equally true that the most exacting demands are made upon trained minds to meet the increasing needs of a rapidly growing business. Those who have carefully observed the tendency of the business are entirely at ease in making the prediction that within another twenty-five years the present position of life insurance will appear as insignificant as the position of the business in 1875 appears to us at the present time; and it would seem to be



a perfectly rational view that the intelligent, industrious, and tactful young man is not likely to be in error in making a choice of life insurance as a business career.



CHARLES N. FOWLER,
CHAIRMAN OF COMMITTEE ON BANKING AND CURRENCY,
HOUSE OF REPRESENTATIVES, U. S. A.

PUBLIC SERVICE.

Outside of the army and the navy there are to-day in the public service of the United States about 100,000 men and women. Here may be found the widest range of employment, the most important including the President himself, the least consequential including those who do the commonest kind of work; the very best wages and the poorest salaries; the longest hours and the shortest days; the hardest, most exhausting toil, and the easiest, most perfunctory occupation.

This great army of workers is naturally divided into those elected for a term or appointed for a specified period and those who are employed under the Civil Service regulations.

The longest term for which any public servant is elected is that of the United States Senator, who represents his

State for six years. The longest term of appointment is that of the Justice of the Supreme Court, whose position may be held for life.

Since the passage of the act, in 1883, providing for the civil service, the principle of its regulation by law has gained ground steadily, until now there is nothing outside the rules except confidential positions on the one hand and those of common laborers on the other.

I shall first speak of the departmental work, in which a vast army is employed, and from which men are constantly being drafted to take the most responsible places in the government service. The Hon. George B. Cortelyou, once a stenographer in the Postoffice Department, and now Secretary of the new Department of Commerce and Labor, and the Hon. M. E. Ailes, recently First Assistant Secretary of the Treasury, and now vice-president of the Riggs National Bank at Washington, who rose through all the grades from one of the humbler posts, are conspicuous examples of that class. The list of those who have thus gained prominence is indeed a long one.

My observation leads me to think that the opportunity to rise to the highest places of trust is about the same in the government service as out of it. However, the thought is always present that there is not the same number of chances to get into some other line where one's talents could be used to better advantage than occur to those who have chosen some one of the commercial occupations that bear so close a kindred to each other.

It was this evident limitation upon one's power of adjusting himself to the thing he discovers he can do best that forced me to the conclusion that government civil service, from its very nature, carries with it the

necessity of a civil pension if the government would be just to its servants who have become old and worn out in the ranks of its workers. The greatest difficulty has been encountered in elaborating a comprehensive scheme that would commend itself to the public, and especially to public men who regard any pensioned place as inconsistent with the nature of our institutions, forgetting that life tenure, the essential, primary condition to a pension list, is itself inconsistent with the original conception of a wise public service. They seem to forget, too, that the civil pension list is the natural and necessary consequent of the Civil Service law, and while we have the one we cannot evade the other. Therefore, I assert that, notwithstanding the present opposition, there must, in the nature of things and in justice to lifelong public servants, be a civil service pension law.

Our diplomatic and consular service is still the football of politics, and many a good man and trained servant is compelled to make way for some less competent successor whose assistance in the Presidential campaign was the price paid for his claim to the place. Consular and diplomatic work is a professional occupation of the highest character; and the best interests of our country, from every point of view, commercial as well as administrative, demand that we should hold this branch of our service, almost more than any other, above party assault. Here, as much as, if indeed not more than, in any other calling we need trained men who by their knowledge and experience shall hold their posts because they can serve their countrymen better than either a ward politician clamorous for the spoils, or a failed merchant who may in the days of prosperity have been a liberal

contributor and now can hardly do more than check against his party balance by drawing his monthly salary.

A public sentiment is fast gaining ground that the duty of the President both to the commercial interests of our great country, whose foreign commerce now exceeds more than two and one-half billions a year, and to the nation itself, which has now come to be the most powerful political factor on the globe, far, very far, outstrips all personal considerations and party debts, however intimate and pressing they may be.

It is a most gratifying sign that our educational institutions, fully appreciating the growth of this sentiment and the great importance of consular and diplomatic work to the public welfare, have established special courses of study that in time will give us a body of representatives at foreign ports and capitals of which we may feel justly proud, and which will certainly excite the emulation of all the other nations of the earth. There is surely no more interesting, promising, and inviting field in all the realm of American opportunity than this, and to it the youth of our land may look with the pardonable aspiration and well-grounded hope of achieving success and rising to distinction.

The popular side of the public service—namely, the national Congress—presents a very different aspect of the question, in the sources of selection, the duties to be performed, and the right equipment for the many sided work of either branch.

Every boy born and brought up on American soil should, so far as in him lies, prepare himself for the duties of citizenship in all its local relationships, since our government rests upon the individual entities and must rise or fall with the average intelligence of the

people. Our public school system, therefore, is the foundation stone of our governmental structure, and one of its chief features should always be to teach the nature of our political institutions and the duties of citizenship.

If one aspires to enter the halls of Congress he should have some other motive than to merely draw the salary, to hold the place as an heirloom, or to use it as a wedge to enter the social world, there to play a part among the official flunkies simply for the pleasure it affords. The people have no real interest in such a servant, and, while he may excite their curiosity, he certainly does not appeal to their pride or fire their imagination.

With Webster, Clay, Calhoun, Sumner, Morton, and Sherman as ideals, several statesmen of the present day quickly come to mind. To prepare for such standing in the Senate one should be of unquestioned usefulness in his profession or life work at home. It is not necessary that a man should be a lawyer to be a great Senator, though to have read law would be of much assistance to any Senator, however great he might be apart from such legal knowledge.

To say that the United States Senate is the most powerful legislative body in the world is, I think, well within the truth; for, in addition to its veto power upon such legislation which under the Constitution must originate in the House of Representatives, it also has the power to veto all treaties, which must originate with the Executive.

The best Senatorial equipment, therefore, includes a knowledge of the law; but above that, and, indeed, above any special knowledge, should be placed soundmindedness, a judicial temperament, and true patriotism. Ex-

ceptional ability combined with vast knowledge would not necessarily make a truly great Senator, for if narrow partisanship and personal selfishness dominate one so endowed he might prove a curse instead of a blessing to his country.

The Senate is the one place in our national administration where the keenest intellect, the largest ability, the profoundest learning, the soundest common sense, the truest patriotism, and the most comprehensive statesmanship can be of the utmost possible service to the country—indeed, it calls for the ideal, all-around American.

Since a Senator, though approaching this high standard, must in the very nature of things follow the fortunes of the party to which he belongs, he will in turn often determine the fortunes of that party in his State, and it has often happened that Senators who have proved worthy have been returned when the trend of politics has been toward the opposite party.

Accordingly, it seems clear that the best administration is always assured through a close competition of parties for public place by putting forward the highest types of American manhood as candidates for popular approval. It is largely because there has been a serious disregard of this rule of action on the part of the States in the selection of United States Senators that there has come an insistent demand for their election by a direct vote of the people; and it may be set down now as inevitable that in some way this end will ultimately be secured. Indeed, several of the States to-day determine the action of the legislature by a direct vote upon the question of choice, the respective legislative bodies mere-

ly registering the will of the people as expressed at the polls, precisely as is the case with the Electoral College.

The work of the House is so diversified to-day that, generally speaking, a thoroughly good business man will make an excellent Representative, but the vast extent of our national affairs renders it impossible for any one man to encompass the whole field of legislation within a score of years. In a decade he may become so familiar with current work as to be an intelligent listener, but if in that time he has mastered any one of a half dozen of the most important subjects so that his judgment is respected and his opinion is final, he has done his duty fairly well and can serve his country to some extent beyond the limits of that conventional phrase, "a good Congressman."

But in the House, as in all other lines of work, the member must become a specialist to achieve any degree of real success or render his country significant service, for a lifetime is all too short to conclude the study of international law, trade conditions, both domestic and foreign, or finance and its kindred topics. Principles are fundamental, and one may grasp them, but their application to conditions, intricate and complicated and changing almost hourly, calls for untiring work and a devotion to public duty surpassing the stress of a business life even in these cruelly busy times.

Public service as an occupation calls primarily for the same qualifications that a successful and respected business career requires, whether one enters the ranks through the civil service examinations, or by means of a Presidential appointment to a consular post, or is elected to office by the people. But, in addition to these qualifications, there must be both aptitude and indefat-

igable industry if one hopes for even moderate success.

The false notion now too often entertained that under the government there are many fat jobs, any one of which would make a man of the aspirant, can only lead to disappointment, even though his highest ambition is merely to pass the time away. Under the government, as in all other vocations, positions do not make men—men make themselves—and unless a young man has ideals and purposes he will fare no better under the one than in any of the others. The price of success is the same the world over and in all relationships, and that price is one's self, if the achievement is to be conspicuous and the result glorious.



M. M. GILLAM.

ADVERTISING.

To effectively advertise a business is one of the most important elements in successfully conducting it. The competitive enterprise that attempts to do without advertising has no chance whatever to attain great success. It is all very well to "let one tell another," but that sort of thing, while the very best of advertising, can only be inspired by deserving and made enthusiastic by large activities.

There is a tendency on the part of so-called "advertising experts" to throw a mantle of mystery over the art and practise of advertising, and to claim that only a transcendent genius can properly present the attractions of a business to the public. To my mind this is simply rubbish.

The very heart and soul of a good advertisement is to hold up such a phase of the proposition as will present a feature likely to appeal to the reader's interest or cu-

pidity. There must be sound business sense on the part of the writer or he cannot do it. He must have the capacity to be a good talking salesman or he cannot do it. Mere words prettily strung together, grammatical, rhythmic, sententious or what not, are not enough. Many years ago the late Eben D. Jordan of Boston, said, "You must love your goods or you can't sell them." There is a world of business truth in the thought.

The salesman who believes in his goods, who "loves" them, can surely sell them. He wouldn't love them except for their fitness, timeliness, beauty, or value. If he is enthusiastic for them he can make a possible customer enthusiastic for them. Nothing is more contagious than enthusiasm. Without study, without special thought, he will say just the right things to stir the interest of the visitor, if that visitor is at all inclined to such a purchase.

This is one of the biggest secrets of the advertising business.

There must be belief and enthusiasm behind the advertisement if it is to do the best possible work. There must be the feature of individual effort behind it. Any advertisement, no matter how widely circulated, is, in effect, no more than a talk to one person. There may be a million readers, but to all intents and purposes each one is singly and alone absorbing what the advertiser says. The words may be joggly, the grammar may limp, but if there are earnestness and enthusiasm in the work, based on knowledge, it will be effective. Of course, if the language is crisp and snappy, if there are quaint and striking expressions, pat and pointed, so much the better. Those things help, but they are not fundamental.

So much for the writing of an advertisement—the part that to the tyro seems about all there is of it.

As to whether an advertisement should be wordy or not depends. If the desire is to explain as well as to attract there must be some talk. Ordinarily explanations are necessary—a shout, as it were, to call attention, then an argument or a statement. If a new proposition is being presented, or new phases of an old one, there should be some elaboration. How much? There is, there can be, no hard and fast rule. The safest plan is to err on the side of saying too little rather than too much. Better leave the grain of wheat a little too bare than bury it in a mass of chaff. It is always safe to credit the reader with a fair share of comprehension.

The vital thing is to have such a presentation as will arrest attention, and such a sentence introductory as will pin it, if but for a moment. If the story is one that the reader is interested in he will read the rest of it, even if the type be small and the space crowded.

For instance, the word "Rheumatism," in bold capital letters at the head of a story in solid agate will be sure to command the attention of any rheumatic sufferer who chances to see it, and the more acutely he feels the twinges of his ailment the more carefully he will read it.

But a very large percentage of all the advertising that is done is meant to appeal to the general reader rather than to a special class. That is why brief statements, in easily read type, with strong, eye-catching head words, are so necessary for the best results.

Contrast is a feature that is often made of great value in the presentation of an advertisement. Indeed, unless there is some degree of contrast with surrounding matter, the strikingness of the advertisement is largely lost.

In the 70's John Wanamaker adopted old style pica as the type for his announcements, using this for a plain, straightforward daily talk on store features of interest. There were no display lines, no eye-catching features; the matter was set in single column, and without leads.

Probably no more effective style of advertising was ever devised. The matter could be read at a glance; it was conspicuous by contrast with either the usual reading matter of the paper or with the usual display advertising. It was made still more effective by always appearing in the same part of the paper. This advertising wrought something of a revolution in methods for presenting the news of stores. It was imitated and copied from ocean to ocean. In time there was very little distinctiveness to old style pica put up in single column. It could be seen in the advertising of maybe a dozen houses in the same paper. Then came a general movement away from that type, and now it is very exceptional to see any announcement in plain old style pica.

The rise and fall of this type in advertising favor illustrate the importance of novelty and contrast in such publicity. That particular face of type is just as good now as it ever was, just as easy to read, just as conspicuous in contrast with the body type of the paper, but it is no longer novel in an advertising make-up, and so it has lost its greatest claim to advertising interest.

Illustration is another feature that has been very helpful in giving an advertisement striking prominence. If the picture has merit enough, either artistic or descriptive, to arrest attention, it is a valuable addition to the story. In many instances the merest bit of a drawing will convey a clearer idea than many times its space in descriptive wording could. In department store advertis-

ing there are multitudes of instances when a drawing, of a size no greater than clearness demands, will tell the entire story (except price) with a completeness unapproached by any other method. In other phases of department store publicity work the only mission of a picture is to catch the eye and please the reader either by its beauty, its quaintness, or its airy lightness.

As daily newspapers are now printed, illustrations are much more satisfactory if made from outline drawings, the coarseness of the paper surface and the rapidity of the work, as a rule, making halftone pictures very unsatisfactory.

But the wide-awake advertiser will not get his inspiration by looking backward. He will care for precedents no more than to learn whatever lessons they may teach, without any willingness to slavishly follow them. The standard of advertising expression and treatment has been raised very much in the last fifteen or twenty years. When a good advertising model appears its features are public property. If there are happy expressions or pat verbal illustrations, the merchant reader in cities miles or thousands of miles away can catch them up, work them into his own announcements, and so wing them along in a persistent flight through the advertising literature of the day. That is precisely what happened in the case of the Wanamaker advertising during more than half a score of years. Copies of the Philadelphia papers containing it were taken by mercantile houses all over the country. The matter was reproduced and sent to thousands of subscribers by syndicate managers. One monthly publication was established mainly to reproduce this advertising in facsimile. Terms, sentences, characterizations of goods, reasons, excuses, every phase of treatment

of special or general cases where crisp or unusual expression or description was employed were snapped up and passed along, until they have become a recognized part of advertising, very much as certain forms of expression are a part of the legal formula everywhere.

The same principle operates with other advertising, but it is mainly in forms of display, in type selections, or in illustrations that recent advertisements have been suggestive of improvements and imitation. So far as verbal expression is concerned, there has been no notable well-spring of inspiration since the old style pica days of the Wanamaker advertising.

As to the opportunities afforded by advertising for a career, I am enthusiastic. I know of no calling so easily within the reach of a bright person, male or female, that offers equal promise of money return. There must be fish or you cannot catch them. There must be a field to sow, or there can be no harvest. A glance at conditions will prove that there is a great and multiplying opportunity for the competent advertiser.

I estimate that fully \$4,000,000 is paid out annually in New York and Brooklyn for department and specialty store advertising. Philadelphia and Chicago put out at least \$4,000,000; Boston, Baltimore, St. Louis, Cincinnati, Washington, Cleveland, and New Orleans expend a total of not less than \$5,000,000. It is probable that the other cities of this country with stores large enough to warrant the employment of advertising writers or managers put out as much and probably more. All of this counts to upward of \$18,000,000 paid out for this class of advertising alone in the United States in one year.

Patent medicines, food products, drinks, and tobacco in various forms are articles on which a great amount of

advertising money is annually expended. One concern has made an advertising appropriation of not less than \$750,000 for the current year. Several others rise to \$500,000 each, and the number that expend anywhere from \$150,000 to \$350,000 is surprisingly large. Then there is a wilderness of others, many experimental, some struggling to the front, and others well established, that devote from \$10,000 to \$100,000 a year to advertising. I would not be surprised if more than \$12,000,000 annually were put out in this country on those lines.

Another class of advertising that at times occupies large space in the papers, and is always in evidence to some degree, is that devoted to financial propositions—mergers, reorganizations, bond issues, mining ventures, oil properties, and the like. It is the most impulsive and erratic advertising of all, and its amount is very difficult to estimate, even approximately, but my guess would be that it equals the total of the preceding group; or, say, \$12,000,000.

Here we have a grand total of more than \$42,000,000 paid each year for advertising, practically all of which is prepared by hired talent. My belief is that more than \$50,000,000 worth of advertising in the United States is put out every year by individuals or concerns, for the preparation or placing of which salaries are paid.

This amount will increase rather than decrease as the years go on. There will steadily be more advertising and better advertising. And there seems to be little prospect that the ranks of the strictly first class advertisers will ever be overcrowded.

I have been in the very storm centre of department store advertising for more than eighteen years. I have seen the entire development of modern methods in such

publicity, and today if I were asked to recommend a man for a leading store I would not know where to turn to find a competent man out of a job. I do not know of ten advertising managers who are strictly first class. Yet there are salaries of from \$10,000 to \$15,000 or more at the command of such people.

The writing facility is only one of the equipments a department store advertising manager should possess. He must have the mercantile instinct, or he can never be a great advertiser. It is not necessary for him to know merchandise familiarly, but he must have such a commanding sense of conditions that he will instinctively realize what presentation of the case will be wise for the seller and attractive to the buyer. Such a man has the capacity to be at the head of a big business. One without that capacity could not rise to the necessary level as an advertiser. In the few instances where men of that grade are at the head of advertising departments, they are exceedingly significant factors in the outfit.

Coming down to the mass of advertisement writers, it will be found that a certain command of language and a superficial knowledge of type faces are their principal equipment. For such people it is not at all difficult to make a fair showing as advertisers. Stock phrases abound in the advertising of the day, and with eyes open they can see good models in all branches of the work. They can command from \$15 and \$25 to \$50, \$75 or even \$100 a week—according to the size of the house and the advertisers' skill in adopting and adapting.

Several years ago an advertiser of country-wide fame said to me, "When I was preparing to go into the advertising business I took a copy of a Philadelphia paper every day and cut from it your Wanamaker work. This I

clipped and pasted in scrapbooks according to the general subject. In the course of four years I gathered matter in this way to make half a dozen fat scrap books. Then, when I went into business and got an order for a series of ads, on clothing or boots and shoes or carpets or jewelry or dress goods, or any one of sixty or seventy titles, I took down a volume of Gillam and dictated to a stenographer the matter I required." Lots of them do it.

What is most needed in the advertising business today is men or women of originality of method and expression, and with the trading instinct as well—minds that are impatient of precedent, that see nothing attractive in moss grown methods, that can grasp conditions as they exist and say the right thing instinctively. The late Charles B. Rouss, of New York, afforded an instance of the advertising strength of earnestness, even although tied to ragged, peculiar and ungrammatical language. His advertising was simply a setting forth of his business talk—odd, quaint, jerky, but stuffed full of hard common sense. His business methods and his business talk went hand in hand to great success.

I know of no training better for a young man who wishes to get a clear view of business conditions and possibilities than would come from experience as an advertiser.

There are great opportunities for the ambitious, wide awake young man or young woman. To any such who feel that they have a call to the advertising business, and who do not know where or how to begin, I would say: Take any advertising in your vicinity that you think you can improve. Write the improved version. Write other advertisements that will hold up new phases of the business, or hold the familiar ones up in a better way. Study

the enterprise. Try to know why one method of presentation is better than another, and why this or that particular idea should be put forward. Then go to the management. You will be sure of a hearing, at least, and if your ideas are valuable rest assured that the chances are they will be appreciated. In any case, don't be discouraged. Keep pressing against the crust, and sooner or later you will surely break through—upward.



L. H. BAILEY,

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FARMING.

Farming pays some men. So does merchandising and manufacturing. Success is a question of temperament and ability.

As a business, farming must pay. All necessary occupations must pay. But it does not follow that they must pay every one who engages in them. Many farms are unprofitable; so are many stores and factories. The failure of the unprofitable farm may be due wholly to lack of either executive or agricultural ability on the part of the farmer, or it may be due in part to poor location, poor soil, too small investment in the business, or to a combination of these factors.

The only way to answer the question as to what are the prospects in farming, is to acquaint one's self with

the actual experiences of good farmers. In every part of the country these farmers are to be found—much more numerous than most of my readers think. It is not only on the fertile prairies that one may find them, but also in the narrow valleys of the East, in the worked-out regions of the South, the arid parts of the far West, the high cold North, and even on the islands of the seas—for it is the peculiarity of farming that it adapts itself to every particular region. In every region one hears farmers saying that their several localities have special adaptabilities for farming. One will come to realize also that farming is not one business but a series of very many wonderfully different trades; for what kinship has the growing of orchids under glass with the planting of sugar-cane in Louisiana or the raising of cattle on the plains except the one circumstance that the products are things that directly or indirectly grow out of the soil? Realizing this marvelous diverseness, the reader will cease to wonder why it is so difficult to give advice to one who is thinking of farming as a business. The reader might not find in all these various places and in the differing trades a kind of farming to his particular liking; but he would readily find men making good living from the land and enjoying the effort; and these enterprises suggest what may be accomplished under fair conditions and with the increased knowledge and skill that now are coming. Since these actual experiences cannot be brought in review in such a writing as this, we must content ourselves with a general statement of what the prospects are for the individual man and what are the new points of view in agriculture.

Primarily, failure or success in farming depends on the abilities of the man; but there are some farms that

cannot be made to pay, no matter who farms them. In the early days farmers were obliged to settle near home. There were few incentives to extensive migration. The farming areas enlarged themselves very gradually, extending up the hills and mountains and spreading over the sterile lands. But when the West was opened this kind of effort changed. Whole new regions were developed; it was no longer a question of extending the old areas. In fact, it came to be no longer a question even of maintaining the old areas: the poorer areas were abandoned. The abandonment of the poorer class of Eastern farms was a great blessing to agriculture, although this was not recognized at the time. It set new standards for the farmer. The productiveness and largeness of the Middle West developed larger and freer ideals of living. A new kind of farm life is rapidly developing. It is largely a reflection from the West. In time many of the so-called abandoned lands of the East will be profitably farmed again, but they will be farmed in a new spirit. Farming by earning is being substituted by farming by saving.

It is not strange that so many persons shudder at the thought of farming. They are thinking of the old ways, the old results, the old ideals. They are living in the past generation. They may say that they still see this old kind of farming, but they see the remains of an older order. The new order of farming is as unlike the old as the new order of shoe manufacture is unlike the old cobbling. Often, also, the person is comparing farming with "trade," or other organized and syndicated businesses. Comparison of uncomparable things of course produces fallacious results.

This brings up the whole question of what the new

ways are. Perhaps we can suggest them by saying what they are not. The new way is not "fancy farming." It is not the growing of mere little specialties or oddities, as mushrooms and ginseng and goats; now and then a skilled expert may do wonderfully well with such as these, but these have little effect on the rise of farming as a whole. The new farming has arisen from two sources—increasing the productiveness and the quality of the staple products, and elevating the ideals of living.

In other words, the compensation in farming is quite as much the pleasure of farming and the joy of being in the country and the satisfaction of being independent, as the mere money that is made. In these times we commonly measure the success of every business in terms of money. Or, to put the matter in another way, the business is merely the means of making the income, while the home is a wholly separate institution. In farming, however, the business and the home are really one. They are but different parts of one enterprise. Every improvement on the farm is a direct contribution to the efficiency of the home. Farming is living. In manufacture the business and the living are separate. It is apparent, therefore, that the home-life part of farming is a direct asset, even as much as the income part is. In casting a mathematical balance sheet only half of the proceeds of the farm are shown.

It must be admitted that most country persons do not derive very great satisfaction from nature and the out of doors, but this is no fault of the farm. The coming generation will see great change in the attitude of mind. The tendency of our educational methods is to open the mind to sympathetic intimacy with nature. This is the particular result of the nature-study movement now so

well under way. Our literature now has a strong nature-ward trend. The development of this nature-sympathy will add a new and powerful resource to our lives. The countryman has the best opportunity to develop this kind of satisfaction in living. This new resourcefulness will also reflect itself in the improvement of all the farm methods. It will surely add to the efficiency of the man. It will make him contented with his surroundings; and this one of the first requisites to success.

But the reader wants to ask whether a person can make money on the farm. My answer is that very many farmers do make money. One must first consider what the investment is in an ordinary farm. A general farm of eighty acres, with usual improvements, will not inventory more than \$4,000 to \$8,000. With the larger figure the net income at 10 per cent. should be \$800; yet no farm that is considered to be at all profitable produces so little income as this. The daily living, which must be charged to income, might amount to more than this. If the general farmer "comes out even" at the end of the year, he has, nevertheless, made a good rate on his investment, and he has increased the value of his home at the same time. The difficulty with farming, considered from the financial point of view, is not that the rate of income is low, but that the amount of profitable investment is small. Considered in its bearing on the national welfare, this fact is propitious, for it means that the farm provides an independent business for persons of small resources. Considered as a means of producing individual fortunes, however, the ordinary farm is inadequate, and it is to be hoped that it always will be so, for at least one great profession or business should be meas-

ured in other terms than money-producing power for the individual.

There is untold wealth in the soil. There are practically no "exhausted" soils; they are mostly humus robbed and poorly handled soils. No one has ever yet reached the limit, on any considerable scale, of what the soil is capable of producing. Many men make a comfortable living on ten to fifty acres of land, and yet they always expect to produce more next year. Only here and there are we beginning to develop a really scientific and businesslike agriculture.

The opportunities in farming are great. It is almost impossible for a man to fail, if he knows the business and has abilities that would lead him to success in other undertakings. It is a general belief that almost any man can leave the city and make a living on a farm. This is a grievous error. Farming must be learned, as must engineering or teaching. It cannot be learned from a book or a bulletin, but by farming. The older the man when he makes a radical change of business the less are his chances of success. If he has been in a subordinate position in his former business, his chances of success in farming are less, for he will probably be deficient in executive handling and initiative. Often a druggist or a preacher thinks that he can go to farming with every assurance of success; yet he would not think that a farmer could go into the drug business or to preaching. Yet many a business man and many a preacher makes a most successful farmer.

The modern teaching is having a profound influence on the ideals and the practices of the farmer. Because the farmer's buildings remain the same, the passerby fails to see any change, but the trained observer sees the

change in the more cattle per acre, the great number of silos, the better tilled and more productive fields, the soil-ing crops, the well handled fruit plantations, the efficient poultry houses, the tools and machines, the shaven lawn, the water supplies and sanitary arrangements, the better turnouts. One significant mark of the changing point of view is shown in the passing of the old penuriousness. This is particularly marked in the great agricultural regions of the West. In many States, for instance, the farmers are now demanding better buildings and equipment for their agricultural colleges, saying that the agricultural subjects must be as well housed and maintained as any other subjects. This marks the rise of pride in the calling.

A person can make money on the land. Thousands of farms in all parts of the country attest this. The old Eastern and Southern States offer as good openings as are to be found in the country. Good land can be had cheaper in the East than in the agricultural West. Markets are close at hand. There is now a slow but steady revival of most of the agricultural industries in the East. Even the sheep and beef cattle industries will probably come back. There are two types of farming developing side by side in the East—the small-area farming on the richer lands and near the markets, and the large-area farming on the rougher, poorer, and remoter lands. The former runs largely to poultry, extensive dairying, and horticultural enterprises. The latter runs largely to hay and grazing. In the great agricultural West farming is so extensive and so profitable that agricultural sentiment well nigh dominates the country. Farmers are rapidly rising into leadership.

Every piece of arable land has great productive pos-

sibilities. This is the opening in farming. The business of land culture is the most important single occupation in the world, considered both in respect to the number of persons employed and the amount of wealth engaged and produced. As the manufacturing and transportation industries increase, agriculture may lose something of its relative supremacy; but this will be only the determining of its place in our developing civilization. The land will still be as productive as ever; in fact, it should increase in productivity. Every person who goes to the city makes one more consumer to buy what the farmer raises. The figures of the twelfth census are very encouraging as to the general condition of most farm enterprises. Every advancement of science and invention and legitimate organization will be reflected in a more resourceful and hopeful agriculture.

The speculative interest is small in farming. The business is "conservative." The bonanza farms of which we have heard so much are largely of a speculative and promotive type. In these fortunes have been made, but as the country settles this kind of farming will subside. However, there is a perfectly genuine kind of large area organized farming, which is likely to increase. This kind of farming calls for the same kind of generalship that is demanded in other commercial enterprises. The development of the extensive fruit growing interests of the South and some of the stock interests of the West are examples in point. There is opportunity for fine generalship in the handling of large areas of the cheap lands of Pennsylvania, New York and New England, and other regions. There is opportunity for good investment in the land for the land's sake, on a large scale. These opportunities are likely to increase rather than

diminish. For this species of farming large areas are required in order that a sufficient business organization may be maintained and an adequate revenue secured. The difficulty with much of the investment that already has been made is the tendency to utilize the land in "fancy farming" or farming for looks.

While this organized kind of farming is possible for the relatively few, the smaller enterprises must continue to be the business for the greater number of countrymen. This less ambitious farming is capable of yielding intense satisfaction. It will bring a good living, and even a competence, at the same time that it affords all the pleasant joys of freedom from the over strenuous life, and of close touch with the real and sweet things of nature. The recourse to farming will be in large part a recourse to nature. It will be a satisfaction of the soul as well as of the purse.

Everywhere, in city even as much as in country, there is now a slowly rising conviction that in some way the country is to be vitalized and spiritualized. This conviction is taking the form of a distinct "sign of the times." It is not necessary that there be any great exodus of persons from the city to engage in real farming, but some of the cityward trend must be checked. One farmer can now produce as much as ten could produce a generation or two ago. It is probable that only about one quarter of all the people are needed on the farm. One-third or more are now farmers. In New England the tendency should soon be countryward as well as cityward. In most parts of the South the cityward tendency is only beginning. But, whatever the economic and social tendencies, farming will continue to afford an attractive business for the person who likes the out-of-

doors, healthful surroundings, and first-hand contact with living and growing things.

It is true that farming attracts fewer young men than many other lines of business. This is chiefly because these other kinds of business offer "positions". If there were the same assurance of "positions" in the country, the boys would go there, as is well shown by the great demand for instruction in the schools that send young men into the creameries as managers. The individual workman or officer in a syndicate business assumes little or no financial risk, whereas a farmer is the responsible head of a business. The boy is also attracted to manufacturing and mercantile pursuits because the cash income promises to be greater than in agricultural pursuits. But only a very few ever really grasp these incomes. The great majority probably never accumulate any more money or property than could be accumulated in a resourceful and energetic farming business. The enormous profits and high salaries in some of the trades and organizations can not be expected to endure, because they are out of proportion to the values created. It would be unfortunate on this occasion to urge any person to engage in farming, for the choice of a career must be governed by temperament and conditions, and good men are needed in every business. Neither is it to be desired that every farm-boy make a farmer. But it is fair and true to say that farming never offered so good opportunities, taking the country at large, as it does now. There are many indications that young men are coming to see this. The agricultural colleges are growing rapidly, and the colleges are now well past their experimental era. College men and women in good numbers are going back on the farms. These persons will have good opportuni-

ties to rise to positions of influence and leadership in their community. The open country is daily becoming more attractive. Its home life is improving, its ideals are rising, the mere physical toil is lessening, the intellectual horizon is widening.





(Photographed by Aimé Dupont.)

WHITELAW REID,

EDITOR OF THE NEW YORK TRIBUNE.

JOURNALISM.

There has never been a time, I think, in the history of colleges in this country, when so many of their students were looking forward to the possibility of a newspaper career. There is a feeling on the one hand that the professions are overcrowded, and on the other that the newer fields, to which applied science and business beckon offer at the outset slower advances and less attractive experiences. The idea of being brought into contact with all forms of public life, of seeing great transactions and watching the actors in them, of writing from day to day the history of a marvelous age—all this naturally fascinates the ardent and aspiring mind. It is true, too, that the young man of good qualifications gets quicker returns in newspaper work than elsewhere. If he studies law, three or four years more must be taken out of his life after graduation before he can enter upon his vocation; and then he has the cheerful prospect of

starvation for as many more before clients begin to find him out. A similar duty confronts the medical student, and patients often display a similar backwardness about coming forward to the young doctor's office. But the college graduate who once gets a chance assignment on a busy day, in the city editor's book, may find himself with as many more as he cares for within a fortnight, and may presently secure a modest salary that with health and industry at once puts him beyond want. Then there are fascinations in the sense of influence, in the power to reach the public attention or shape public opinion, even in the facility for coming in contact with important men and getting somewhat behind the scenes in transactions that interest the whole community. The notion is spreading, too, that a newspaper is beginning here, as long since in France, to take the old place of the lawyer's office as a path to entry on public service. The very name by which (for want of a better) foreign newspaper writers have taken to designating themselves, "Publicists," seems to many to hint at a more attractive pursuit than defending a rogue or prescribing pills or potions.

It cannot be denied that there is a certain justice in many of these considerations. And yet the first advice a competent and experienced newspaper man is apt to give a young aspirant will be the old one, "Don't." It is an irregular, exacting, exposing, tempted life. It demands intense and long-continued application; breaks into all manner of engagements; entails its hardest work at moments when everybody else is at leisure; and requires, even when pursued by gentlemen, under the direction of a gentleman, occasional situations from which a gentleman's first impulse is to shrink.

Besides, there are, after all, fewer prizes in it than in

the old professions. Any of you can count up forty or fifty men now in New York who have won distinction and fortune in the law. Can you count half as many who are doing as well in both particulars on the newspapers? Nor can it be said that the tendency in the law appears yet to be toward diminishing the number or value of these prizes. Among the newspapers it does seem to be that way. Great success does not always bring esteem, or fortune, or permanence. The lower walks of the business are enormously overcrowded; competition is not always scrupulous, and the pay is apt to be very small. Within the lifetime of the boys now in the preparatory schools the changes have been almost revolutionary. While they were largely physical at the outset, they necessarily opened the way to moral changes as striking.

The cost of raw material has been reduced from two-thirds to three-fourths; the cost of composition one-half, the cost of printing in a greater proportion than either. Meantime, the supply of the raw material has become almost unlimited; the speed with which news can be put in type has been so greatly increased that columns of new matter and pages if need be, can be set within an hour of the time when the paper must reach its readers; and the speed with which printing can be done has been so revolutionized that it is easier to catch mails and news companies and newsboys at the earliest hour desired with an edition of a hundred thousand now than it used to be with an edition of five or ten thousand.

Obviously the business result from these revolutionary changes in the methods of the business was inevitable, no matter what the sentiments, or wishes, or even principles of the men engaged in it. Nothing could pre-

vent either a great reduction in price or a great increase in size, or both; and nothing could then wholly avert the moral changes which soon began to accompany this unexampled facility of production.

Reductions in price created a new and different constituency. It is a mistake to suppose that the one-cent newspapers gained their main support by drawing away the old patrons of the high priced journals. What they chiefly did was first to induce many of these to read an extra paper, and next to find new classes of readers. But reduction in price and increased facilities for production on a large scale and of any size did more than create a new and different constituency. They changed the general character of American newspapers, dear as well as cheap, conservative as well as reckless and sensational. They touched papers that maintain high prices and people that rarely or never read cheap papers.

One effect perceptible began on the business side. Practically no newspaper is sold at such an advance above the cost of manufacture that all its expenses can be defrayed out of the profit on circulation. There must be added a certain revenue from advertising. Now, what the advertiser first thinks he wants, roughly speaking, is publicity. He attaches great importance to mere circulation, and concludes, at any rate, that however much he may cultivate particular, choice preserves, it is unsafe not also to sow broadcast. A consequent craze for circulation rather than merit, for circulation, in fact, as the only thoroughly satisfactory test of merit, came to control policy—circulation among intelligent and moral classes, if practicable and convenient, but, at any rate, a great circulation, no matter among what classes, as the final evidence of success, and the only way to

make the sale of a newspaper below the cost of manufacture ultimately a source of profit.

It would be unjust not to give the other side of the picture. While evil traits of the American newspaper have been increasingly developed under the cheapness of production, an expansion of facilities and craze for mere circulation, there are other changes as marked and most beneficial. The flippancy of our newspapers, which so vexed the soul of Matthew Arnold, certainly continues, as well as their deplorable addiction to the use and invention of slang. But they are more generally well written than they were fifteen years ago, and are often more attractively arranged. The number of young college-bred men whom they enlist grows steadily larger. They are better informed on the subjects they discuss, or at least they have acquired and organized far better means of gathering information. They glean news with amazing thoroughness, and they exhaust it from the most secluded and guarded hiding places with the mysterious energy of an air pump. Whoever has had to do with public affairs has learned that as all nature is in conspiracy against a vacuum, so under the guidance of the newspapers the whole world around them is in conspiracy against a secret. They cover the earth with their correspondents. They study the progress and even the politics of all nations. They give foreign news by cable with tenfold the fulness of a few years ago. Almost every first-class paper has its own special cable letter from London or Paris. In fact, the ocean lines are used as freely now by the press as the line to Washington formerly was. A rate of 55 cents a word from China, and of far more from the Philippines, does not check the full daily reports.

Transformations and rivalries in Associated Press organizations have made it easier to start newspapers and easier to secure a good news service from all the world. As for our own country, telegraphs and telephones, in the energetic hands of the press, have made it from ocean to ocean a mere sounding board. The newspapers follow all explorations, terrestrial or sidereal. They watch every inventor, and tell the marvels of every discovery. They cultivate systematically and assiduously the fields of Literature, Art, Science, Music, and the Drama. They present letters of adventure and pictures day by day of the business world. They give details of political, legislative, financial, maritime, railway, social, educational, reformatory, charitable, and religious movements, especially in the Sunday issues, in a profusion, a variety, vivacity, and popular attractiveness never before approached. There has been an extraordinary increase in the attention given to the interests of women, and also in the space surrendered, even in the most sedate of journals, to every conceivable variety of sport. All kinds of special interests find constant and copious notice—bicycles and bicycle riders, automobiles, their makers, patterns, riders, and records, chess, checkers, bridge whist, spelling reform and every other crank reform, amateur photography, and so on and on to anything and everything new that may be found under the sun. In fact, the great American daily has become a good deal like the great "department store"—a sort of universal provider. Never since the first daily was printed did they give so much for the money, and never were they so much sought after. Everybody reads them—and nearly everybody, among the more educated classes at least, abuses them.

We have seen the startling changes of the last twenty years. What are you to expect and prepare for in the next twenty?

It is safe to predict that the better class of daily newspapers and their readers may come to a mutual understanding that less quantity and better quality would be mutually advantageous. "The Saturday Review" once called Macaulay the father of picturesque reporters, and Dickens has often been called their prince. No doubt these are ambitious models; but the press that sent Mac Gahan to a European war and Harding Davis and Bigelow to an American one, and has developed so many of our most popular authors from its ranks, can rise above the present wordy and tedious level of telling the news whenever the editors and their readers agree that it is desirable. In that direction lies one of the best hopes for the future of the best newspapers. Fewer words, shorter stories, better told; fewer \$18 a week reporters, who only write by main strength and awkwardness, and more men who have learned the capacities of the English tongue; fewer men whose chief idea is to rake in all the rubbish they can and label it with startling headlines, and more men who know what is worth telling and know how to single it out from the mass of rubbish; fewer mere photographers in nonpareil whose sole idea is to set down in fine type everything they see, and more artists who know how to see and how to make, in words, a picture of it—that is the line of progress for an intelligent press, worthy of an intelligent community. But first of all, the public must make up its mind that the merit of a paper, its enterprise, its resources, and its importance are not determined by the number of its pages—that paper is made out of cordwood and costs two

cents a pound; that type is set by steam, and that white sheets can be run through printing machines in any number you want in any big office at the rate of 100,000 an hour. If the people continue to want quantity, as they certainly seem to do now, the quantity will no doubt continue to be printed—though Sheridan's ghost should hiss in every editor's ear that easy printing, even more than easy writing, makes curst hard reading.

Thus far these suggestions may have seemed to partake more of preaching than of prophecy. It is for the public, quite as much as for the newspapers or for the young men who are now coming forward to make them, to determine whether, when grouped, they portray at all the newspaper of the next quarter or half century. We shall have fewer sensational papers, and get the news told more as a landscape is painted, with some sense of perspective and some artistic omission of offensive or worthless objects, whenever and as far as the public taste is well enough educated to prefer a correct and vivacious style to "blood and thunder" written and printed as if with a paint brush. We shall surely have shorter reports of many things, if not also smaller papers. The notion that Sunday's paper must be ten times as big as Monday's will be mitigated. The first class daily paper of the future is not likely to come in the form of a book, or even a pamphlet. Whatever its form or quality or contents, the people that read it will pay for it—it will not be an eleemosynary institution, chiefly conducted by the advertising business of the country for the benefit of anybody that will read. Its wealth and prosperity will be welcomed as a gain and security for the whole community. It will indulge in no sham about being independent of business considerations. It will be best

liked when its owners conduct it, and least when its owners, engaged elsewhere, make their newspaper an investment as a means of surreptitiously furthering private ends. It will not be intensely individualized—will not be a one man paper. It will support parties as a means to a patriotic end, and religion as leading to the best life; but it will not be a party organ nor an organ of the churches. It will deal with politics according to its convictions, and tell the truth according to its capacity; but, not being edited by angels, it will make mistakes sometimes, and perhaps have even the grace sometimes to acknowledge them.

If now, among students who have done me the honor to follow these remarks, there should be some still unwise enough to persist in an intention to take up newspaper work, the simplest advice to give them, and about as practical as any they are likely to follow, is to imitate Lord Bacon, and take all knowledge for their province. The average newspaper man on the great dailies is far better educated to-day than twenty years ago, but the standard of qualifications is likely in the next twenty to be higher still. Like most of my colleagues on the press, I have little faith in "schools of journalism," or in "courses of journalism," or, if you must have the truth, in lectures on journalism, either. The only place to learn the newspaper business is in a newspaper office, and you have to be caught tolerably young to learn it at all. But the place to acquire some of the qualifications for the work is the place where you can get the best general education the world affords. Above all, it must be an education that teaches you to see straight and to think straight, and therefore its very foundation must not be undermined by too eager a search for easy electives.

We may next look for whatever will facilitate wide acquisition and persuasive expression. You must first know things, and know where to find things, and next know how to interest people in your way of telling these things, and in your reasoning about them. Knowledge, real knowledge, not a smattering of the history of your country, is indispensable, and no historical knowledge will come amiss. Constitutional and international law, at least, you must know, and if you can take a full law course, so much the better. Modern languages will be most helpful, and in our great newspapers a reading knowledge of at least three of them, French, German, and Spanish, becomes every year more desirable. The literature of your own language should be studied until you learn to use the noble tongue to express to the best advantage and in the fewest words whatever you have to say. You should know your own country, and, above all, grasp intelligently the fact that the part worth knowing is not confined to a narrow strip along the Atlantic coast. You should know foreign countries, and thus chasten the notions that wisdom began with us, and that liberty and intelligence hardly exist elsewhere. You should know the people, the plain, everyday, average man, the man in the street—his condition, his needs, his ideas, his notions—and you should learn early that he is not likely to be overpowered by your condescension when you attempt to reason with him.

Finally, let me remind you that the man who succeeds is a man who has not undervalued what he is undertaking. This work we have considered is as varied, as exacting, and as responsible as any known to our modern civilization, if not also the most potential for good or ill. It calls for patience, for moderation, for quick and ac-

curate perception, for deliberate judgment, for resolute purpose, and for what the politicians call staying power. No man who cannot, like the pugilist, "take punishment," has any business in it. No man who lets his nerves or his passions run away with his ice-cold judgment has any business in it.

But to him who is called, the opportunity is beyond estimate. To him are given the keys of every study, the entry to every family, the ear of every citizen when at ease and in his most receptive moods—powers of approach and of persuasion beyond those of the Protestant pastor or the Catholic confessor. He is by no means a prophet, but, reverently be it said, he is a voice in the wilderness preparing the way. He is by no means a priest, but his words carry wider and farther than the priest's, and he preaches the gospel of humanity. He is not a king, but he nurtures and trains the king, and the land is ruled by the public opinion he evokes and shapes. If you value this good land the Lord has given us; if you would have a soul in this marvelous civilization and a lifting power for humanity, look well to the nurture and training of your king.



JAMES K. HACKETT.

THE STAGE.

Can the stage be reckoned among the practical professions which are open to the young men of the day?

In answering this question let us throw aside the consideration of prejudices which among certain classes of our people have long been discussed very bitterly and apparently to no purpose. Let us consider rather the practical advantages that might accrue from the adoption of the stage as a profession. In view of the large and increasing number of theatres in the country, the great value of their real estate and the gross box office receipts throughout each season, it is surely reasonable to say that the stage as a profession may be seriously considered in choosing one's life work. Furthermore, it is a surprising fact that the number of theatres is growing far out of proportion to the increase in population. This clearly shows that, instead of retrograding, the stage is bound to advance in affording a practical op-

portunity for either a commercial livelihood or an artistic career.

To the query as to whether I should recommend to one of my family the adoption of the stage as a profession, I would simply answer that it is very rare to find a man, no matter what his calling may be, who advises his son to adopt his own profession. Why? Because in our own experience we see the hardships, the trials and the troubles perhaps more clearly than we see the pleasures and triumphs accruing from our calling; whereas, in viewing other professions we see only the successful man. We understand nothing of the trials and struggles. We hear but of the success. In other words, we see the high lights of the picture and not the shadows, and yet the shadows are, after all, the most important. My father, the late James Henry Hackett, who had every honor which the profession of the stage could heap upon him, always regretted that he had not practiced law, while my half-brother, John K. Hackett, who was for nineteen years Recorder of New York City, and the predecessor of Recorder Smyth and recognized to be one of the finest criminal judges we have had, regretted that he had not adopted the stage as his profession.

To-day a man may approach the stage in a business capacity or he may approach it artistically, or perhaps in both ways. If he approaches it with a prospect of either becoming a manager or a producer, he must have, in addition to a keen business sense, the ability to gauge the desire of the public and its varying tastes, while at the same time he must have a knowledge of things dramatic, so that when a play is presented under his direction it will please and prove successful. If he approaches the stage solely with the hope of an artistic career, then, of

course, he should have that indescribable quality, magnetic ability. It is only necessary to glance over the long list of actors in our country to point out dozens of men who have an immense amount of ability as actors, but who lack the wonderful power of magnetism. The result is that they can never rise above a certain level. Therefore, to answer concisely the original question, it is necessary to determine which branch of the drama one desires to pursue, the commercial or the artistic, and if convinced that the aspirant has a qualification for either in greater degree than for any other calling, I should certainly advise him most earnestly to adopt the stage as his profession.

But should the aspirant desire to accumulate great wealth, and if that is his sole desire, I should say by all means—"no." It is almost impossible for any one through the medium of an actor's art alone or through artistic management to secure wealth. On the one hand we have only to point to the late Augustin Daly, who, with all his success, left an estate terribly involved; and on the other hand, to mention the honored name of Sir Henry Irving, who a few years ago was in dire financial difficulties. This is due principally to three causes. First, the desire to do things artistically; second, that when you have a success many people, such as authors, share in your profits, but in event of failure there is no one to share the losses; and third, to the fact that the scenery, costumes, etc., in other words, the "plant," on which so much money must be expended, is perishable. It would seem to me that the chances in the managerial field, when one is fired by desire to produce artistic results, are 25 per cent. against you. Whereas, if a man invests \$50,-

ooo in a shoe factory, his plant is non-perishable, at least almost so, and is generally a valuable asset.

Is it better to begin very young if one desires to follow the stage as a profession? I should say about the age that one would start in any calling. A training for the stage should be as complete as an apprenticeship to any other art or profession.

A thorough education is very desirable, but that does not mean a college education is absolutely essential. I hope to see the day when there will be a college specially endowed, in connection with our leading universities, for education in dramatic art. This would have its effect in attracting the right class of aspirants for theatrical honors, and as selection would then be made by examination the stage would profit considerably, to the greater satisfaction of the playgoer.

An individual's chances on the stage are considerably improved by a sound preliminary education. The difficulties of getting a start in the dramatic field are the same as are experienced in other professions. The struggles for success in the legal or medical profession are just as keen, and it is a case of the survival of the fittest on the stage as in other arts. The apparent attractiveness of the theatre, I think, draws more applicants to the stage than to the majority of professions in proportion to the number of people employed. This is due to the fact that so many people do not realize the necessity of adaptability and preparation. They think that it is merely a matter of walking on and acting. In many instances where they have failed in other ventures they suddenly become imbued with the idea that the stage is their calling.

If an individual feels that he is qualified to try the stage in all seriousness as a profession, he should apply

to a manager. A good deal will depend upon the impression he creates, as it is scarcely likely that the manager is going to offer an engagement to an unknown who shows no special aptitude for acting. In other callings a man must produce references and prove himself capable. Why should it be different with the stage? The beginner will get a salary equivalent to his position, which is usually enough for self-support, but, as the average season is only thirty weeks, the total should be divided by fifty-two to arrive at the weekly income.

The development of the stock company throughout the country affords fine opportunity to acquire the groundwork of the player's art. The actor is called upon to play a variety of parts, and eventually may find there the line of work for which he is best suited. It should then be his object to perfect himself in that particular line, and the long runs which successful plays now obtain may enable him to rise from the ranks by dint of his own conscientious work. Artistic elaboration of a character comes slowly, and commensurate with this is the public's recognition of the artist. It is always well to bear in mind an axiom of the painter's art, "Better to paint a little, but paint that little well."





F. N. DOUBLEDAY.

PUBLISHING.

It is the custom, apparently, to consider one's own particular business in life as the most difficult and unsatisfactory of all the callings men follow. But in writing of one's vocation, just why one should always lay prominence upon its difficulties instead of its opportunities and pleasures I fail to see. Notwithstanding its drawbacks, I still believe that the publishing of books and magazines offers a good chance for young men of imagination, ambition, and cleverness, and it ~~is~~ even fair to presume that the difficulties and troubles of publishing are in many respects more interesting than ~~an~~ equal number of trials in some other business.

So far as our experiences go, the young graduate who starts out to decide upon a career seems to be fascinated with the idea that in that it touches the literary side it must, therefore, be delightful—the literary aspect ap-

peeling to the imagination and the commercial to the practical.

In the successful working out of the problem we find that the imagination is quite as necessary to the business side, and that the ability to see visions and to work to the actual realization of them is the only thing that really counts. Books must not only be secured and printed, but a market must be discovered for them, and the ingenuity with which the readers are found is the final test.

The dignified day when the publisher sat in his office and decided from the manuscripts submitted which he should publish, and then sent the newly made book to the booksellers with the idea that they would do the rest, passed away before this century was begun. If good books come to him and an eager public demands them and buys them through their own gracious good will, so much the better, and he may indeed be thankful; but if he waits for these conditions, he starves by the wayside. Perhaps the publishing business is changing (most things are) and the young men who can adapt themselves to the conditions that are coming and so be a little in advance of these changes and in line with them will reap an abundant success.

In a broad way it is true that the market for good books and magazines is larger than ever and rapidly growing; for a good many years traditions in publishing have counted perhaps most of all, and the average youngster has a hard time with traditions. But traditions go for less nowadays, and probably all publishers realize that there remain to be invented a good many ways of bringing the book and the reader together. How to sell the book—the single volume; novel, history, biography, or

what not—to any really large proportion of the people who would buy if they knew of its existence is what the publisher wants to know. Books sold by subscription are more fortunate in this respect, since they do find a much larger proportion of the readers who really want and need a set of volumes—and a good many who do not.

To come to the present day conditions, one may consider that a publishing house, to exert any lasting force, will have four well defined fields of activity:

First—The general or miscellaneous book publishing.

Second—Books sold by subscription methods.

Third—Magazines.

Fourth—Educational or text book publishing.

There are, it seems to me, more drawbacks to the first class than any of the other branches. One is that the publisher of miscellaneous books must practically recreate his business every year. The profits (and fortunately, also, the losses) are most variable—a popular novel may sell 100,000 copies this year, and hardly more than a thousand or so next year. This is a vital trouble; the expenses are regular—each success leaves a train of new ones—and the sales or profits irregular. Each book is a small or large speculation, as the case may be, and the residuum of books left at the end of the year which can be counted on for regular sale year after year is pitifully small. The merciful feature is that a novel which once gets the public's good will sells vastly more than in the old days, and is therefore more profitable, even considering the increased first expense of getting the public to know that it exists.

The obvious need, one would say, then, is to get those books of actual and acknowledged merit which will last, but it is not only difficult to get many such books, but the

expense of making them and telling the public of them often takes a year, or several years, perhaps, to recoup the first investment. Meantime, the expense goes on at the rate fixed by the novel, which sells by the fifty thousands, we will say. All this can be remedied by getting for more serious work the sales secured for novels of temporary popularity. No doubt it can be done, but who will do it?

Another thing the coming publisher will do is to invent books which the public really wants, or thinks it wants, and he will manage to create the book to fit a need which only this imagination can foresee or guess at.

It has often been said that authors are as difficult to deal with as artists or musicians, but experience leads me to believe that the writers of books are no harder to do business with than the people who set the type and print the books or the booksellers who sell them. An author's book is his baby—"the child of his brain," I believe the correct phrase is. Can it be considered strange that he looks with dread upon the critic who wishes to chop out sections and passages of his pages, or remake what he has worked out with care and labor? One might as well expect a mother to have her baby improved by reducing the number of its fingers or reshaping its ears. The surprising thing is that so often is the publisher's opinion sought for and his advice accepted so readily. It takes tact to deal with writers, but no more than it does to deal with any other person of spirit—a lawyer or doctor, let us say, or a trained nurse.

I fancy that it is the notion of having relations with distinguished authors which makes publishing appear attractive to the youngster choosing a career, but let him not forget that the pleasure and satisfaction of the rela-

tionship rest upon a *quid pro quo*—that the publisher must do his part with skill and ability to keep the connection profitable to both. Many times his best is not good enough; but, then, his conscience need not trouble him, and he can let it go at that.

The subscription work has the great advantage of dealing with the buyer direct. The number of customers, and therefore the opportunities, are greatly increased. It would take pages of this book even to mention the schemes which one must invent and are still to be invented to work this out to its full field of usefulness. Happily, as a branch of the business which has always been more or less looked down upon, it is making its way up rapidly.

In the old days a book which cost 50 cents, and a worthless one at that, was forced upon an unwilling buyer for ten times that sum by the sheer force of the ferocious and untamed energy of a book agent. This old type of agent was a terror to the customer and to the publisher, and he robbed both the buyer and the seller with a high hand. His modern prototype scorns to sell by the aid of the hard luck story, and he leaves his customer with some remnant of self-respect, so that he may again sell the same man. Uncle Sam, also, has intervened, and now probably half of the subscription books distributed now are sold by mail, and the very best books are brought into homes on the so-called instalment plan. How great this business is in the aggregate it is impossible to say, but it is known that about half a million sets of the *Encyclopædia Britannica* have been sold in this country—a book made primarily for the purposes of a people living three thousand miles away. This gives some indication of the possibilities. They have only been touched. Surely

the books and the *personnel* will improve and buyers will multiply many fold.

Then we come to magazine publishing. A great publishing house needs at least one magazine—a half-dozen would be better if they might all have separate fields and the force could be gathered to run them all at a high level of efficiency. Mr. Harmsworth publishes forty or more in England, and all with success. The strong features of the magazine published in association with the books is too obvious to talk about, but even as a separate business it has many advantages over book publishing. For one thing, it has a more continuous life; once begun, with a fair share of success it is built up year after year on a solid foundation. The publisher has here also the pleasure of dealing directly with his customers, whom, if he is clever, he will interest as his friends both among his subscribers and his advertisers. His chances, too, are many sided and touch many departments; the suggestion of ideas in editorial contents, in illustrating, in plans for selling and in drawing into his net the elusive advertiser who won't be coaxed until all the others have been secured.

The sale of educational text and college books is a thing quite apart, and here the young graduate often finds his opportunity, his college training and experience doing him an immediate and assured service. As a book once introduced has the chance for a long and steady sale, the risks are less constant and the effort less spasmodic.

One would say that all these branches should be in a healthy state of vigor in this perfect publishing house we are talking of. In profits probably the magazines would yield best, then the subscription department, then the text books, and finally the miscellaneous book publishing,

which is so apt to be "Prince or Pauper," with the accent on the latter.

If one looks over the field, one sees opportunities in abundance. The men, young or old, who can really do things are few and far between, but the men who can explain with great force and detail and with ability why they haven't done things are abundant. One comes upon a great many men who have ideas, and good ones, and can tell you how to work them out, but the men who have the ideas and can and do work them out are many days' journey apart. It is only by developing the men one at a time, letting the inexperienced newcomer try again the old schemes which we have tried in vain, and now and then he will make a success of some point which has been quite fruitless heretofore.

In the next decade the sale of books will certainly be vastly increased, and these are the men who will do it. One hears it said that nowadays it costs more than it did to launch a book. If by launching we mean selling a large quantity at the start, this is unquestionably true, but the cost of typesetting, paper, printing and binding have not increased. The real meaning is that more is expected in launching a book than was expected a few years ago, and this does cost money. The capital involved is perhaps greater, but capital for people who can make success is probably more easily secured than it ever was. Which, all being summed up, means that this writer has wasted a good deal of valuable space to tell again what is so well known; that the opportunities are great for men who deserve them and for those who cannot see and avail themselves of them the path is long and hard.





BRADFORD RHODES,

PRESIDENT OF THE THIRTY-FOURTH STREET NATIONAL
BANK OF NEW YORK.

BANKING.

I. OPPORTUNITIES AFFORDED.

In the last seven or eight years there has been a remarkable increase in the number of all classes of banks and in the volume of their business. At no previous time in the country's history have so many banks existed, and their aggregate balance sheets are greater than ever before. Although commercial and financial crises may temporarily check the great activity in banking that has prevailed in the period intervening between the close of the years 1896 and 1903, the banks are sure to continue to grow in number and in size, for the natural resources of the United States are still far from having reached the limit of their development. There has been a notable tendency of late on the part of American bankers to extend their operations to other countries, and already there are institutions organized by American enterprise and

American capital contending for a share of the profits of international banking.

Thus the opportunities for those who may contemplate a banking career are widening, both at home and abroad.

Consolidation, which has been so marked in other lines of corporate enterprise, has taken place to some extent among a few of the larger banks in the more important cities, but it has not yet had, and probably will not have, any appreciable effect in the way of diminishing the number of officers and employes required to conduct the operations of the banks.

The banking system of the United States differs in essential particulars from the systems of most other countries. Most of the European nations, and also Canada, have but comparatively few banks—large central institutions with numerous branches or agencies. To organize banks of this character large capital is required, and generally the granting of a charter calls for a special act of the legislature. In the United States, both under the National Banking act and the laws of the respective States, it is easy for five or more persons to organize a bank, the minimum capital being but \$25,000 for national banks (except in the larger towns and cities), and the requirements in the case of State banks are even less in many cases.

As a rule, the foreign banks are owned and managed by capitalists who reside in the larger cities, and the agents and managers of the branches are trained at the head offices and appointed by the president or general manager.

In the United States, on the other hand, the banks are owned and managed by men who reside in the towns or cities where the bank is located. Each bank is inde-

pendent, and has a direct and vital interest in the industrial and commercial welfare of the community where it does business. It is probable that this feature of the American banking system has been one of the strongest factors in the growth and prosperity of the country.

It is apparent from what has been stated that banking in the United States is live and progressive. Indeed, it may be said that the banks register and regulate the productive wealth of the country and aid immeasurably in its rapid and proper distribution. There is hardly a phase of trade or production that is not represented by the banks. By the perfection of their machinery they make capital and credit available for instant and universal service to mankind. It is the chief function of a bank—almost its sole legitimate function—to aid in the production and distribution of the staple commodities of life. Those who may be disposed to think that this is not an exalted work to do should reflect that the sustenance of mankind must precede endeavors to elevate and ennoble the race.

Speaking more definitely of the attractions of a banking career, it may be stated generally that the young man who secures employment in a bank has an exceptional opportunity of at least making a good start in business. Whatever may be said in regard to laying up treasure on earth, it ought to be one of the first aims of every young man to get on an independent, self-supporting basis. Only by doing so can he be assured of being able to be of the highest service to his fellows. He who has not learned how to help himself can hardly hope to be of much assistance to others. The acquisition of wealth is not the chief end of banking, but those engaged in this calling, both by their associations and training,

have unusual opportunities of acquiring that texture of mind that enables one to provide for the rainy day. The care of wealth begets habits of thrift and financial shrewdness.

Young men who are fortunate enough to secure employment in banks are at once initiated into the intricacies of a dignified and serious profession. They learn to be punctual, diligent, neat, painstaking, industrious, and courteous, and get a knowledge of business law, form, and methods that is of the greatest value. Above all, they have opened for their study the book of human nature, whose stores of information are inexhaustible. They not only learn how to discount paper, but also to discount the rosy schemes of the speculator and the promoter. Sound business judgment becomes almost a sixth sense, not subject to the illusions which sometimes cheat the other senses. The banker, from the nature of his calling, fulfills the injunction to get wisdom and understanding.

There are many who think that the banking centre of the world is destined to pass from London to New York at no distant day, and already the growth in our banking power is shown to be without a parallel. The natural development of the country, the extension of banking operations to foreign shores, and the restless energy of our people in capturing the great prizes of this age of industry will combine to make banking more attractive to young men than it has been heretofore.

II. QUALIFICATIONS REQUIRED.

The first requisite for a successful banking career is character. Honesty is indispensable—not merely what may be defined as “statutory honesty,” but the honesty

that has its origin in principle. Banking is concerned chiefly with credit, and the prime constituent of credit is confidence, and without character confidence cannot endure.

But, of course, character is only one thing required. There must be a natural liking for the business—an aptitude for it. Loyalty to the bank's every legitimate interest and obedience to superiors—doing wrong at no man's dictation; attention to minute details; a habit of observation; diligent, careful, and intelligent effort; patience, and self-restraint; unfailing courtesy and an ambition to gain success by deserving it—these are a few of many qualifications that might be enumerated. When all these are gained they must be joined to common sense and the knowledge that comes through study and experience.

The young man to-day who desires to fit himself for a banking career will be greatly aided in acquiring the necessary preliminary qualifications by the courses of study now offered by many of the colleges and universities and by the educational work being carried on by the American Institute of Bank Clerks, under the auspices of the American Bankers' Association. Too much attention can hardly be paid, however, to the fundamental branches of education. There are few better recommendations for a young man who desires to enter a bank than to be able to write rapidly and legibly; a thorough knowledge of commercial arithmetic and of the geography of our own country is also a valuable part of a bank clerk's equipment. It should be borne in mind that the work of a bank is plain and practical rather than showy. Of course, this implies no lack of appreciation of the

broadening influence of a wide and thorough culture, which helps to make the complete banker.

The young man ambitious of achieving an honorable position in banking should be well posted on the current thought and history of the day as recorded in the daily newspapers and magazines. Much of this information is worthy of being classified and preserved for reference.

A knowledge of accounting and of commercial law is also desirable, and to be ready for promotion it is necessary that the young banker should familiarize himself with the productive capacities of different parts of the country, the various crops, their seasons for growing, marketing, etc.

It is presumed that every young man is aware that in a bank sobriety, clean speech, truthfulness, and a gentlemanly demeanor are expected as a matter of course.

Although the demands of a banking career are exacting, the rewards are, generally speaking, in fair proportion to the service rendered.

III. THE REWARDS OF A BANKING CAREER.

As a means of earning a livelihood banking is superior to many other callings both as regards the shorter hours, thus affording more leisure for recreation and for acquiring a broader culture, and in the rate of compensation. Although banking hours are far from being as short as the public imagine, they are, generally speaking, shorter than in many other lines of work. The bank employe, however, who attaches too much weight to this fact will hardly win a high place in banking.

Salaries paid young men in banks, considering the moral and mental qualifications required, are not high, but they are such as afford a fair living and a reasonable surplus, with proper economy. Besides, promotion is

almost sure to follow a proper devotion to the bank's interests, and not infrequently the messenger or clerk becomes in a few years the cashier or president. There are many examples of such promotions, won strictly on merit, to be found in the large city banks, as well as in those situated in the country. The young and energetic banker whose capacity has been demonstrated by results is almost certain to find his services in demand at a fair salary. The large number of banks, each with its own officers, affords ample opportunity for promotion, and this is won, in the great majority of cases, by efficiency rather than by influence. If the young man who enters upon a banking career bends every effort toward fitting himself for the duties of the place above him as well as the place he occupies, he will find that opportunities for advancement will not be lacking. Generally those who get into one place and remain there without making any progress are those who lack either ability or ambition. The obstacles to advancement can be removed, almost universally, by diligent application to the work in hand, and by continuous study and preparation for what lies before.

There are not a few large prizes to be obtained in a banking career. Some of the places carry with them great power and influence and a salary as large as, or perhaps larger than, that received by the President of the United States. These places are held now, and have been in the past, by men, some of whom have worked their way up from obscurity and poverty. Similar opportunities are open to young men to-day who possess the courage and self-reliance to move forward and take possession of them. No greater mistake could be made by any young man than to be deceived by the cry that the

great corporations have destroyed the chances for getting on in the world. There never was a greater field open for young men than is now offered in banking and other business enterprises of this busy new country. The forces of industrial and commercial progress are moving forward on their beneficent missions as never before, and the banker is found as ever at the forefront.

Illustrious examples of honorable station reached by financiers and bankers, such as Morris, Girard, Hamilton, Gallatin, McCulloch, Gage, and others, may be mentioned as showing the possibilities of banking as a profession. But whether such high distinction shall be reached or not, the longings of a reasonable ambition may be fulfilled by any young man of resolute purpose. In almost every community the banker is the man looked up to and respected for his character and judgment. He may be a man of only moderate wealth, but he is esteemed for his character and wisdom, rather than for his material possessions.

The amassing of wealth is an incident of banking, not its main purpose, which is to conserve credit—that is, to make the best possible use of the capital and credit of men in building up the productive industries of the nation. To do this is a labor worthy of any young man's ambition. So far as our perceptions reach, there is no nobler employment than in ministering to the comfort and welfare of mankind. This is done by the banker—although the public may not know it—quite as effectually as by those whose direct aim in life is to be philanthropists. Bankers disclaim any such title for themselves, but in promoting sound business they are conferring upon mankind benefits of a most substantial kind. The true banker is, first of all, a thorough business man. He knows, by in-

tuition and experience, what enterprises are sound and what are risky, and fosters the former and frowns on the latter. But outside the bank he is something more than a money lender or a mere business man. He is the good citizen, having a large interest in whatever tends to the upbuilding of his town, state, and country. He is thoroughly in touch with his fellow men, shares in their joys and their sorrows, contributes liberally to every worthy benevolence, and by his counsel aids those whose lack of business judgment would often lead them into unwise speculations.

In the best sense of the term the banker may be characterized as a successful man. He is the trusted custodian of the money and credit of his community, and rarely betrays the trust reposed in him.

The rewards of banking are not to be won by the timid or the slothful, but for those who are willing to work for them and who possess the necessary qualifications there is perhaps no other calling that offers more in the way of honor and profit.

Neither in banking nor in any other calling in which men engage can any sure prescription for success be written. Worthy achievement is the result of innate qualities, although there are fixed principles from which no departure can be countenanced. The dazzling success of men in piling up great fortunes by doubtful methods sometimes blinds our perception of truths of general application. The exploits of financiers, which receive so much attention, constitute but a small part of the real and enduring services which banks render to the every day business of the country. The mountain peaks loom large upon the horizon, but the unassuming plains and valleys fill the granaries of the world. It may be that the young

man who chooses banking as a career may never reach the topmost rung of the ladder, but if he takes pleasure in his work he will enjoy whatever progress may be made, and feel satisfied that in the course of it he has contributed to the happiness and prosperity of mankind. In laying the foundation for his banking career he will build upon character and efficiency. Then shall he be likened unto "a wise man who built his house upon a rock; and the rain descended and the floods came, and the winds blew and beat upon that house, and it fell not, for it was founded upon a rock."



CYRUS TOWNSEND BRADY.

AUTHOR OF "THE SOUTHERNERS," "A DOCTOR OF PHILOSOPHY," "SIR HENRY MORGAN—BUCCANEER," "AMERICAN, COLONIAL AND BORDER FIGHTS AND FIGHTERS," ETC., ETC.

AUTHORSHIP.

To paraphrase the melancholy Hamlet, to be, or not to be, an author, depends upon something more than human volition. In any profession whatsoever, some inherent capacity as well as some natural predisposition is highly desirable. Indeed, if brilliant and complete success is to be achieved, these things are radically necessary. Nevertheless, education, industry, and persistence will frequently develop upon a very slender basis of original ability or inclination a preacher, a lawyer, a doctor, a soldier, a merchant, a mechanic, or an engineer. It is true that the great theologians, the great engineers, the great physicians, the great soldiers, and so on, are born as well as made; but one can become an excellent ex-

amplar in almost any profession upon practically no original talent or predisposition whatsoever—always provided he has compensating talents for industry and application, and educational opportunities with which to make the most of them.

Julius Cæsar, for instance, was not what was called a natural soldier, but such was the extraordinary clearness of his mind, its mathematical and executive qualities, that although he did not begin campaigning until he was well along in years, he speedily mastered his contemporaries by his intellectual military development, and left a record for successful fighting long unparalleled. Yet as a great captain he could not be mentioned with Alexander, Hannibal, or Napoleon.

Artists, poets, and authors stand in a different category. Even indifferent ones have to be born as well as made. Now, after that declaration, let the reader not take me as an example too seriously. It is a bad thing for an author, or for any one else, to take himself too seriously, by the way. From my earliest days I have spelled the word Author with a very large "A," and I looked upon him with corresponding awe. I have scarcely dared to claim to belong to the ancient and honorable guild, and certainly I should never have assumed to write on authorship as a profession had I not been constrained thereto. I have not taken myself very seriously as an author—neither, it may be urged, has the public!—although the writing of books is my profession, and if a man may have two, with the preaching of sermons, is my vocation also.

Assuming, therefore, that a natural foundation is peculiarly necessary, indeed indispensable, in the profession of Authorship, how shall one find out that he possess

it? By experiment. The publishers' list are filled with such experiments. They spring up in a night and fade away in a day. What test is there to apply then by which a man—I use the word generally and consider it as inclusive of women throughout this article—may determine tentatively that his talent lies in the direction of writing, at least so far that he may be warranted in making the experiment? No test, if we may judge from the experiments made, and yet there is one. Now what is it?

The first requisite of a book, philosophical, historical, romantic, whatever may be its character, which challenges attention is that it shall be interesting. If it be not that, all its other merits, whatever and however many they may be, are either lost or labor under a heavy disadvantage. The ability to put things clearly and in an interesting way is the basic condition of successful writing. Some few men who do not have this ability prove the rule by the law of exceptions, and make books which must be read for their other qualities, or their contents; but these very books would be the more read and the more highly esteemed if they possessed this quality generally necessary to book salvation, of being first of all interesting.

Therefore, the would-be author should try first of all to ascertain if he possesses the ability to tell things interestingly, clearly, and briefly. The last two follow the quality of interest as a matter of course. To be obscure and verbose!—well, those qualities would condemn anything. If, in addition to the faculty of being interesting, he possesses the gift of imagination, if he can make pictures in his mind's eye, and can so translate these pictures into words that other people will see them, nay,

must see them, as he, he can be perfectly sure that he stands on the royal foundation and that all he needs for successful building is study, application, and perseverance.

Let us suppose that he possesses the ability to make things interesting and the quality of imagination which can evolve things to be made interesting. How does he get to be an author? By working at it! He studies grammar, he learns to write correct American. Many authors, so-called, know little of grammar, or are indifferent to its laws. He studies rhetoric and the nice use of words to enable him to differentiate between good and bad diction; and incidentally punctuation and spelling in order not to drive editors and compositors mad. He studies the use and abuse of words, not on the principle of Talleyrand, that they are to conceal thought, but on the contrary, to express it. The great modern dictionary, with its fund of illustration, quotation, and its nice discriminations, should be his constant companion. Finally he studies the great masters of literature in every field, but especially in his chosen field, be it philosophy, history, poetry, analysis, science, or that which includes them all in greater or less degree, fiction!

If he is to be an historian he must acquire and cultivate the habit of thorough research. He must learn instinctively where to find things and how to extract information from sources which he has discovered. He must have as keen an insight for an authority or an authoritative statement, or a valid conclusion, as a newspaper reporter has for news. He must neglect no source of information, however humble. He must have the ability to weigh the evidence and decide unerringly and impartially—against his wish if need be—among the conflict-

ing statements and claims, for that which is true. These qualities are those which go to make up what is called the historic sense. He must exhaust the outside world of whatever it has to give him before he draws upon himself; and he need not fear that he will lose originality thereby. "There is nothing new under the sun" was said by one of the oldest and wisest of authors. The only thing new is the way of putting the old. And if the would-be author has not a way of putting it which is all his own, he is only an imitation author after all. There are a great many imitation authors, some of them are astonishingly good at it, and they meet with a reasonable amount of success, but they are not the real thing and may be dismissed from our consideration. What is true in principle of historical writing is true of any other kind.

Now, this state of perfection is not arrived at without long and hard labor—(*hic labor hic opus est*)—and such is our constitution that we do not care—in fact it would be impossible—to wait until we have become fully prepared before beginning to write; for the man who would be fully prepared on the lines I have indicated would be an Ideal Author, and if he hesitated to write until he became an Ideal Author there would be an end of literature. A boy has to learn to swim by getting down into the water and striking out, at the peril of his life it may be; and an author gets into literature and progresses, or is drowned in the sea of letters, in exactly the same way.

He writes if he has it in him. And it is well that he does. He does the very best at the stage of development at which he has arrived; and he publishes, if he can find anybody willing to risk him, and he generally can, to-day at any rate. Then he gets criticised. Let him be thankful for and pay heed to criticisms. Generally they are

good and help him, and even if they are worthless in themselves they suggest more perhaps than they declare. Then he writes again and gets more criticism and digests it and goes ahead. He keeps on, he keeps everlastingly at it. He takes greater and greater pains with his work. He always does his very best. He revises, expands. He learns through successive failures. By and by he "arrives." Frequently when that stage is reached it is time for him to die, and die he does. Sometimes he does not "arrive" until long after he is dead. But he has fought a good fight. He has the precious consciousness of honest endeavor to crown him at the end. Even if he has not attained the highest point he may yet have contributed something to the sum of human happiness or human learning. He may yet have made something of a mark. Even a poor book adds to the harmless gayety of nations, for it amuses the critics if no one else.

As to the detail of writing, as to how it should be done, every one is and must be a law unto himself. He must do it the way experience shows that he can do it best, not necessarily the easiest way, either. One uses a pencil, another a pen, a third a typewriter; one dictates to a secretary, another to a phonograph. The environment of one man is one thing, that of another, another thing. Hooker composed most of his "Ecclesiastical Polity" in the vicinity of the pig-sty, I have heard, in order to get away from his family. One modern poet must have roses and champagne at his elbow when he writes, accompaniments I cannot recommend to most young authors. One waits for an inspiration to seize him, dashes off what is coming to his mind at a white heat. Another plods and plods, slowly, little by little. One corrects and revises and improves with every revision.

Another leaves his work untouched as it came, fearful lest revision should diminish and not add to the force of what he has written. I am not advocating either or any method for the would-be author, whoever he may be. That is a thing that he must settle for himself with the assistance of the critic and the public. I have my own way; other authors will find their own way also.

Now, there is another feature of an author's work to be considered, the commercial. Authorship—should I say writing?—with me is a pleasure. I love it, yet it is a business, and as a business I stick at it day in and day out with model regularity of hours of work, except for periods of needful recreation. I follow it as steadily as a man in pursuit of any other calling. And I advise the beginning author to do the same. Acquire a habit of sticking to it and keeping at it. People think that some authors write a great many books. After all, what is the number of words that I, or any other author, produce compared to the number of words that any active clergyman, who has an average of three or four services a week with sermons and addresses upon the one basic theme at each of them, produces in the course of a year? Which leads me to think that preaching is a good foundation for writing. I have found it so. Yet I would not have you take orders merely as a preliminary to authorship.

One element of successful authorship, from a business point of view, and it is idle to disregard that point of view, is in knowing what will appeal to the readers for whom you are trying to write. Another is in selecting or discovering original subjects for consideration; or, at least, if that be impossible, of devising original means of presentation, which shall yet be legitimate and proper.

In writing for magazines, it is incumbent that the character of the magazine, or its editor, its clientele should be studied; and if without doing violence to personal convictions writing can be done with these things in view, so much the better.

Yet it is well to bear in mind that "pot boilers" are not literature any more than they are art. They may have good qualities—they must have good qualities, else they would not "boil"—but they are prostitutions of genius and talent. No one will make so much out of authorship as he who does not write for money primarily. It is perfectly possible not to do this and yet have a full appreciation of the monetary value of work. An author should be one whom money cannot buy, although he supports himself with his pen.

There never were so many opportunities for authors as to-day. The public reads more and more. Books and magazines multiply, publishers and editors keep pace in the rate of increase with writers. They are all anxious for new material that is worth while. And they love above all things to get hold of a new author and exploit him. Sometimes they exploit him to death, by the way! Never again will it be necessary for some Dr. Johnson to take the "Vicar of Wakefield" out on the street and sell it for a song. Poetry, unfortunately, is not popular as a mercantile commodity, but "Paradise Lost" will not have to be disposed of for a pittance again: which is encouragement to future Miltons. If a man has anything to say and ability to say it he is certain sooner or later to get a hearing and get paid for it—liberally, too. But there is no room for the dilettante in letters; no place for the spasmodic worker, no field for the careless, the indifferent, the superficial author, however great his talent.

In conclusion, if you want to be an author and think you can, I advise you to try; and I promise as a humble member in behalf of the mighty guild, that if you have the talent and will cultivate it assiduously, although you may be a long time in "arriving" you will inevitably get there in the end. When you have "arrived," even in a small way, even partially, you will find that you occupy one of the most agreeable and delightful positions that it is possible for man to fill.

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